Curriculum Vitae

Karim Sapag, Ph.D.

Address: Departamento de Física, Instituto de Física Aplicada (INFAP). Universidad Nacional de San Luis. Ejercito de los Andes 950. CP: 5700, San Luis, Argentina. E-mail: sapag@unsl.edu.ar

EDUCATION
1997: Autonomous University of Madrid (UAM), Spain, Ph.D. in Science
1991: National University of San Luis (UNSL), Argentina, Bachelor in Physics

PROFESSIONAL EXPERIENCE
2001-present: Leader of the Porous Solid Laboratory (LabSoP), INFAP, CONICET-UNSL.
2015-present: Principal Researcher at National Council of Scientific and Technological Research (CONICET), Argentina.
2018- present: Associated Partner of the ***Erasmus Mundus Joint Master Degree Program*** (EMJMD) in Chemical Nanoengineering
2015-present: Director of Master degree Program in Physicochemical Surface Science and Porous Media, UNSL
2014-2108: Vice-Director of Institute of Applied Physics (INFAP)
2015-present: Full Professor in Physics, Department of Physics, UNSL, San Luis, Argentina.
2009-2015: Independent Researcher of National Council of Techniques and Scientific Research (CONICET), Argentina
2004-2009: Adjunct Researcher of CONICET, Argentina
2005-20015: Associate Professor in Physics, Department of Physics, UNSL, San Luis, Argentina
1998-2005: Adjunct Professor in Physics, Department of Physics, UNSL, San Luis, Argentina.
1991-1998: Assistant Professor in Physics, Department of Physics, UNSL, San Luis, Argentina.
1986-1991: Assistant in Physics, Department of Physics, UNSL, San Luis, Argentina.
2003-2006: National Coordinator of the Iberoamerican Network CYTED, Ciencia y Tecnología para el Desarrollo, in the Subject: V.F - "Adsorbents for Environmental Protection".

GRANTS AND AWARDS
— ADVANCED FELLOWSHIP. Secretaria de Ccia y Técnica. U.N.S.L. 1992-1996
— FELLOW OF THE RESEARCH PROGRAM. Ministerio de Educación y Ciencia de España, 1992-1993
— FELLOW OF THE "MUTIS" PROGRAM, Agencia Española de Cooperación Internacional, 1993-1997
— GRANT OF THE COMISIÓN IBEROAMERICANA DE CIENCIA Y TECNOLOGÍA EN DESARROLLO-CYTED, to attend the Catalysis and Environmental Decontamination Course, Huelva, España, 2000
— GRANT FOR YOUNG RESEARCHERS, Federación Brasilera de Catálisis and Comité Nacional de Catálisis of Argentine to attend the 1st. Congreso de Catálisis del MERCOSUR, Rio Grande do Sul, Brasil, 2001.
— POSTDOCTORATE FELLOW, National Council of Techniques and Scientific Research - CONICET, Argentine 2002-2004.
— "UGARIT Award" Award in Science and Technology for the contributions in the field of Physics and Chemistry. Club Sirio Libanés de la Ciudad de Bs. As. y la Federación Árabe Argentina, FEARAB, September 29, 2006.
— Winner of the "Instrument Grant Program", third quarter of 2011by the Company Micromeritics Scientifics Instruments. Prize: an ASAP®2050 Xtended Pressure Sorption Analyzer.
— Professor and Researcher abroad with proven experience, Department of Applied Chemistry, Public University of Navarra, Pamplona, Spain, 2011. Education Ministry of Spain.
— Invited Professor in several Universities from Argentina, Brazil, Mexico, Colombia and Spain

PROFESSIONAL SOCIETIES
Associate Member of the Argentine Society of Physics (AFA).
Associate Member of the Argentine Society of Inorganic and Physical Chemistry (AAFQ)
Member of the Argentine Society of Catalysis (SACAT).
Member of the Iberoamerican Society of Catalysis (FISOCAT).

Member of the Argentinian Society of Environmental Science and Technology (SACyTA)

RESEARCH INTERESTS

Synthesis of porous solids and evaluation of their porous and surface properties.Use of gas and vapor adsorption as a characterization technique.
Environmental technologies. Environmental management.
Development of adsorbents. Hydrogen and methane storage and capture of carbon dioxide by adsorption.
Preparation, characterization, and catalytic activity of metal supported nanocatalysts.
Catalytic synthesis of liquid hydrocarbons (Fischer-Tropsch).
Development and use of porous carbon materials for electrochemistry applications

RESEARCH ACTIVITIES

Advisor of 12 PhD concluded and 3 in course, Co-supervisor of 2 Ph.D concluded; Supervisor of 10 MSc concluded.
Principal Researcher of more than14 grants funded by the National Agency of the Science and Technology, National Council of Techniques and Scientific Research (CONICET), Ministry of Science and Technology and National University of San Luis, Argentine.

PUBLICATIONS

Refereed publications: 160; Book chapters: 4; Book:1; Conference papers: 200
Patents: "Produção de carvão ativado utilizando novos agentes ativantes baseados em sais de ferro. Instituto Nacional da Propriedade Industrial, Minas Gerais, Brasil, nov. 2006. Regsitro: (PI0703590-0), 2008. Elaine Pereira, Luiz Carlos Alves de Oliveira, Andrea Vallone, Karim Sapag

Articles (peer-reviewed)

1. "Tracer Diffusion on Correlated Heterogeneous Surface" **K.Sapag**, F.Bulnes, J.L.Riccardo, V.Pereyra and G.Zgrablich. Langmuir 9 (1993) 2670-2675.
2. "Temperature Behavior of Tracer Diffusion on Heterogeneous Surfaces" **K.Sapag**, J.L.Riccardo, V.Pereyra and G.Zgrablich. Surface Sci. Letter A704 (1993).
3. "On the topology of Correlated Energy on Heterogeneous Surface" **K.Sapag**, F.Bulnes, J.L.Riccardo, M.Rizzotto and G.Zgrablich. J. Phys. Condens-Matter 5 (1993) A241-A242.
4. "Simulation of Tracer Diffusion on Heterogeneous Energy Surfaces" F.Bulnes, **K.Sapag**, J.L.Riccardo, V.Pereyra and G.Zgrablich. J.of Physics Cond-Matter 5 (1993) A223-A224.
5. "Temperature Behavior of Tracer Diffusion on Heterogeneous Surfaces" **K.Sapag**, J.L.Riccardo, V.Pereyra and G.Zgrablich. Surface Sci. 295 3 (1993) 433-444.
6. "Molecular Processes on Heterogeneous Solid Surfaces" G. Zgrablich, V. Mayagoitia, F. Rojas, F. Bulnes, A. González, M. Nazzarro, V. Pereyra, J. Ramírez, J. L. Riccardo and **K.Sapag**. *Article feature*.Langmuir 12 (1996) 129-138.
7. "CO hydrogenation with Co catalyst supported on porous media" **K. Sapag**, S. Rojas, M. López Granados, J.L.G. Fierro and S. Mendioroz. Journal of Molecular Catalysis A: Chemical, Vol. 167, No. 1-2, 2001, p. 81-89.
8. "Synthesis and Characterization of Micro-Mesoporous Solids. Pillared Clays". **K. Sapag** and S. Mendioroz. Colloids and Surfaces A: Physicochemical and Engineering Aspects, Vol. 188 No 3 , 2001, P. 141-149.
9. "Proper stability in porous media based in a natural clay" **K. Sapag,** R. L. Girón and S. Mendioroz, Granular Matter 3 (2001) 1/2, p.131-135.
10. "Síntesis y Caracterización de Materiales Porosos a Partir de Arcillas Montmorilloníticas Naturales". **K. Sapag**, C. Solar, J.L. Riccardo, L.C. A. Oliveira, R. M. Lago. Anales de la Asociación Física Argentina, V 13 (2001) 218-224.
11. "Activated Carbon-Iron Oxide Magnetic Composites for the Adsorption of Contaminants in Water". L.C.A. Oliveira, R.V.A. Ríos, J.D. Fabris, V.Garg, **K. Sapag** and R.M. Lago Carbon 40 (2002)2177-2183.
12. "Transition Metals supported on Al-PILCs as catalysts for C_6H_5Cl oxidation" L. C. A. Oliveira, R. M. Lago, J. D. Fabris, C. Solar and **K. Sapag**. Braz. J. Chem. Eng. 20-1 (2003) 45-50. ISSN 0104-6632
13. "Clay-Iron Oxide Magnetic Composites for the Adsorption of Contaminants in Water". L.C.A. Oliveira, R.V.A. Ríos, V. Garg, J.D. Fabris, **K. Sapag** R.M. Lago**.** Applied Clay Science 22 (2003) 169-177.
14. "Magnetic Particle Technology: A Simple Preparation of Magnetic Composites for the Adsorption of Contaminants in Water". L.C.A. Oliveira, R.M. Lago, R.V.A. Ríos, J.D. Fabris, W.T. Soares and **K. Sapag,** J of Chem. Educ., Vol81, N2 (2004) p 248.
15. "High Surface Area Functionalized Carbon Briquettes: a Novel Adsorbent for Metals from Water" L. Costa Melo, R.M. Lago, M. Araujo, **K. Sapag**, M. Sardella, H. Silva and C. Deiana, J. Braz. Chem. Soc. Vol 16 5 p899-902 (2005). ISSN 0103-5053.

16. "Polymer Coated Vermiculite Iron Composites: Novel Floatable Magnetic Adsorbents for water spilled contaminants". L.C.R. Machado, F.W. Lima, R. Paniago, J.D. Ardisson, **K. Sapag** R. M. Lago. Applied Clay Science, 31 (2006) 207-215. ISSN**:** 01691317.
17. "A new material based in iron oxide/niobia composite to oxidize organic contaminants via heterogeneous Fenton". L. C. A. Oliveira; J. Fabris; **K. Sapag**; M. Guerreiro; M. Gonçalves; M. Pereira. Applied Catálisis A. Vol 316 Issue 1 (2007) 117-124. **ISSN:** 0926-860X
18. "Evaluation of the dioxin and furan formation Thermodynamics in combustion processes of urban solid wastes ". J.C. Moreno-Pirajan, C.A. García-Ubaque, R. Fajardo, L. Giraldo, **K. Sapag**. Eclectica Química.V32 N 1 (2007)15-18. ISSN 0100-4670.
19. "Stabilization/Solidification of ashes in clays used in the manufactured of ceramic bricks". C. García Ubaque; J.C. Moreno Pirajan; L. Giraldo Gutierrez; **K. Sapag**. Waste Managment & Research, Vol 25, n04, (2007) 352-362. Online ISSN: 1096-3669 Print ISSN: 0734-242X. Ed SAGE, London, UK.
20. "Pure Niobia as Catalyst for the Oxidation of organic contaminants: Mechanism Study Via Esi-Ms And Theorical Calculations". Luiz Oliveira; Teodorico Ramalho; Maraisa Goncalves; Flávia Cereda; Kele Carvalho; Marcelo Nazzarro; **K. Sapag**. Chem Phys Letter 446 (2007) 133-137 Elsevier, **ISSN:** 0009-2614.
21. "Influence of the activation time on the development of the porosity of physically activated carbons". J.P. Toso, R. Aja Muñiz, A. Vallone, A. Fernandez Rodriguez, C. R. Castillo, **K. Sapag**, G. Zgrablich. Anales AFA Vol 18 (2007) p. 208-212. ISSN 0327-358X.
22. "Catalytic Oxidation of Aromatic VOCs with Cr or Pd-Impregnated Al-Pillared Clay: Byproduct Formation and Deactivation Studies". L.C.A. Oliveira, R. M. Lago, J. D. Fabris and **K. Sapag**. Applied Clay Science 39 (2008) 218–222. ISSN**:** 01691317. ***F.I. 2.474***
23. "Determination of Differential Enthalpy and Isotherm by Adsorption Calorimetry". V. Garcia-Cuello, J. C. Moreno-Piraján, L. Giraldo-Gutiérrez, **K. Sapag**, G. Zgrablich. Research Letters in Physical Chemistry Volume 2008, (2008) Article ID 127328, 4 pages doi:10.1155/2008/127328**.** Hindawi Publishing Corporation.New York USA.
24. "Design, calibration and testing of a new Tian-Calvet Heat-Flow Microcalorimeter for Measurement for differential heats of Adsorption". V. Garcia-Cuello, J. C. Moreno-Piraján, L. Giraldo-Gutiérrez, **K. Sapag**, G. Zgrablich. *Instrumentation Science and Technology* 36 (5), (2008) pp. 455-475. **ISSN:** 1525-6030 (electronic) 1073-9149 (paper). Taylor & Francis Group. London, UK. *Factor de Impacto: **0.430***
25. "Preparação de carvão ativado em baixas temperaturas de carbonização a partir de rejeitos de café: utilização de FeCl3 como agente ativante" Elaine Pereira, Luiz C. A. Oliveira1, Andrea Vallone, **Karim Sapag**, Márcio Pereira. *Química Nova, v. 31, n. 6, p. 1296-1300, (2008). ISSN 0100-4042. Factor de impacto: **0.763***
26. "The role of different parameters of synthesis in the final structure of Ti-MCM-41 mesoporous materials C. Chanquia, G. Eimer, **K. Sapag**, E. Herrero. *Microporous and Mesoporous Materials*, v. 116, Issues 1-3, pag 670-676. (2008). ISSN: 1387-1811. Elsevier. *Factor de Impacto: **3.285***
27. "Natural Gas Storage in Microporous carbons obtained from waste of the olive oil Production. C. Solar, F. Sardella, C. Deiana, R. M. Lago, A. Vallone, **K. Sapag.** *Mat. Res., Dec (2008), vol.11, no.4, p.409-414. ISSN 1516-1439*.
28. "The X-Ray Photoelectronic Spectroscopy (XPS) in Characterization of Porous Materials from natural Clays". S. Spagnotto, C. Solar, M. Nazzarro, **K. Sapag**. Anales AFA Vol.20 (2008) p127- 133. ***Premio Másperi.***
29. "Synthesis and characterization of NiO/YSZ composites for SOFCs". R.F. Martins, M.C. Brant, R. Z. Domingues, **K. Sapag** and T. Matencio. *Materials Research Bulletin Volume 44, Issue 2. pag 451-456. (2009). ISSN: 0025-5408. Factor de Impacto**: 2.105***
30. "Reactive Adsorption of Methylene Blue on Montmorillonite via an ESI-MS study".L. Oliveira; F. Nogueira; J. Lopes; A. Silva; M. Goncalves; A. Anastacio; **K. Sapag**. *Applied Clay Science, Volume 43, Issue 2, (2009), pages 190-195. ISSN: 01691317. Factor de Impacto: **2.474***
31. "A new microcalorimeter of adsorption for the determination of differential enthalpies". V. Garcia-Cuello, J.C. Moreno-Piraján, L. Giraldo-Gutiérrez, **K. Sapag** and G. Zgrablich. *Microporous and Mesoporous Materials. Volume 120, Issue 3, 15 (2009), pages 239-245 ISSN: 1387-1811. Elsevier. Factor de Impacto: **3.285***
32. "Preparation of activated carbons from coffee husks utilizing FeCl3 and ZnCl2 as activating agents". L.C. A. Oliveira, E. Pereira, I. R. Guimaraes, A. Vallone, M. Pereira, J. P. Mesquita, **K. Sapag**. *Journal of Hazardous Materials, Volume 165, Issues 1-3, 15 June (2009), Pages 87-94. ISSN: 0304-3894. Elsevier. Factor de Impacto: **4.173***
33. "Decomposition of Phenol by Pseudomonas Aeruginosa immobilized on Activated Carbons". A. Puerto-Tello, J.C. Moreno-Piraján, A. M. Guzmán, M.E. Escudero, L. Velásquez, L. Giraldo, **K. Sapag**. *Journal of Environmental Engineering and Management, (2009),Vol. 19 (2) Págs. 73-78 200. ISSN 1022-7636. Factor de Impacto: **1.004***
34. "Analysis of the Response of Thermal Sensors in Adsorption Microcalorimetry.V. Garcia-Cuello, J.C. Moreno-Piraján, L. Giraldo-Gutierréz, **K. Sapag**. *International Review of Chemical Engineering, V 1 N3 May (2009). ISSN :2035-1755.*
35. "Adsorption Micro Calorimeter: Design and Electric Calibration". V.Garcia-Cuello, J.C. Moreno-Piraján, L. Giraldo-Gutierréz, **K. Sapag**, G. Zgrablich. *J. of Thermal Analysis and Calorimetry, (2009) 97:711–715. DOI 10.1007/s10973-009-0345-4. Springer Link ISSN 1388-6150. Factor de Impacto: **1.604***

36. "Variation of the noise levels in the baseline of an adsorption microcalorimeter". V. Garcia-Cuello, J.C. Moreno-Piraján, L. Giraldo-Gutierréz, **K. Sapag**, G. Zgrablich, *J. of Thermal Analysis and Calorimetry, J Therm Anal Calorim (2009) 97:705–709.DOI 10.1007/s10973-009-0333-8. SpringerLink ISSN 1388-6150. Factor de Impacto:* ***1.604***
37. "Determinación de la Densidad de la Fase Adsorbida de Metano e Hidrógeno Supercríticos en Carbón Activado". A.A. García-Blanco, J.C.A. de Oliveira, A. Vallone, R. López, **K. Sapag.** *Anales de la Asociación Física Argentina (AFA, Vol 21 pages155-162, (2009). ISSN on line1850-1158.*
38. "A study of the pore size distribution for activated carbon monoliths and their relationship with the storage of methane and hydrogen". A.A. García, J.C. A. de Oliveira, R. López, J.C. Moreno, L. Giraldo, G. Zgrablich, **K. Sapag**. *Colloids and Surfaces A: Physicochem. Eng. Aspects 357 (2010) 74–83.* ISSN 0927-7757. *Factor de Impacto:* ***2.233***
39. "Nature and Location of Copper Nanospecies in Mesoporous Molecular Sieves". C. M. Chanquía, **K. Sapag**, E. Rodríguez-Castellón, E. R. Herrero, G.A. Eimer. *J. Phys. Chem. C (2010), 114, 1481–1490. Factor de impacto:* ***4.805***
40. "Magnetic properties and catalytic performance of iron-containing mesoporous molecular sieves". V. R. Elías, M. I. Oliva, S.E. Urreta, S.P. Silvetti, **K. Sapag**, A.M. M. Navarro, S.G. Casuscelli, G. A. Eimer. *Applied Catalysis A: General, Volume 381, Issues 1-2, 15 June (2010), Pages 92-100. ISSN: 0926-860X. Factor de impacto:* ***3.903***
41. "Production and Characterization of activated Carbon from Waste Candeia (Eremanthus erythropappus) and their application on Organic Compound Adsorption". E.C. de Resende, P.H. Ramos, M. C. Guerreiro, **K. Sapag**. *Rev. Colomb. Química, Vol 39, N°1 (2010), p 111-120.ISSN 0120-2804.*
42. "Sistema RTP: Uma Técnica Poderosa para o Monitoramento da formação de nanotubos de Carbono durante o Processo por deposição de Vapor Químico". J. C. Tristão, F. C. C. Moura, R. M. Lago, **K. Sapag**. *Quim. Nova, Vol. 33, No. 6, 1379-1383, (2010). Factor de impacto:* ***0.763***
43. "Characterization of Activated Carbons from Peach Stones through the Mixed Geometry Model". D. A. S. Maia, **K. Sapag**, J. P. Toso, R. H. López, D. C.S. Azevedo, C.L. Cavalcante Jr., G. Zgrablich. *Microporous and Mesoporous Materials 134 (2010) 181–188. ISSN 1387-1811. Factor de impacto:* ***3.285***
44. "Use of activated carbon as a reactive support to produce highly active-regenerable Fe-based reduction system for environmental remediation" M. C. Pereira, F. S. Coelho, C. C. Nascentes, J. D. Fabris, M. H. Araújo, **K. Sapag**, L.C.A. Oliveira, R.M. Lago. *Chemosphere 81 (2010) p. 7–12. ISSN 0045-6535. Factor de impacto: 3.206*
45. "The Effect of Heterogeneity on the Adsorption Isotherms Activated Carbon". J. C. A. de Oliveira, D. Barrera, J. P. Toso, R. H. López, **K. Sapag**, G. Zgrablich. *Rev. Ing. 31, (2010) pp. 54-60. ISSN. 0121-4993.*
46. "Adsorption and diffusion of toluene on Na and Cs Mordenites for hydrocarbon traps" R.M. Serra, E. E. Miró, **K. Sapag**, A. V. Boix. *Microporous and Mesoporous Materials, 138 (1-3), p.102, (2011). ISSN 1387-181, Factor de impacto:* ***3.285***
47. "Effect of the Synthesis Method on Co-catalysts based on MCM-41 for the Fischer-Tropsch Reaction". A A. García Blanco, Ma. G. Amaya, Ma. E. Roca Jalil, M. Nazzarro. M. Oliva, **K. Sapag**. Topics in Catalysis (2011) 54:190–200. ISSN:1022-5528. *Factor de impacto:* ***2.624***
48. "Improvement in the Pore Size Distribution for Ordered Mesoporous Materials with Cylindrical and Spherical Pores using the Kelvin equation". J. Villarroel Rocha, D. Barrera, **K. Sapag**. Topics in Catalysis (2011) 54:121–134. *Factor de impacto:* ***2.624***
49. "Mesoporous Silicates with Spherical Morphology Modified with Vanadium Highly Active in Oxidation of Cyclohexene with H2O2". C. Chanquía, A. Cánepa, **K. Sapag**, P. Reyes, E. Herrero, S. Casuscelli, G. Eimer. Topics in Catalysis (2011) 54:160–169. *Factor de impacto:* ***2.624***
50. "Synthesis and Photocatalytic Activity of Titania-Loaded Transition Metal-Modified MCM-41 Molecular Sieves". V. Elías, E.G. Vaschetto, **K. Sapag**, M. Crivello, S. Casuscelli, G.Eimer. Topics in Catalysis (2011) 54:277–286. *Factor de impacto:* ***2.624***
51. "Characterization of the PSD of activated carbons from peach stones for separation of combustion gas mixtures" D.A. S. Maia, J.C. A.de Oliveira, J. P. Toso, **K. Sapag**, R.H. López, D.C.S. Azevedo, C.L. Cavalcante Jr., G. Zgrablich Adsorption, (2011), Volume 17, Number 5, Pages 853-861. *Factor de impacto:* ***2.000***
52. "MCM-41-based materials for the photocatalitic degradation of Acid Orange 7" V. Elías, E. Vaschetto, **K. Sapag**, M. Oliva, S. Casuscelli, G. Eimer. Catalysis Today, Volume 172, Issue 1, 25 August (2011), Pages 58-65. *Factor de impacto:* ***3.407.***
53. "Non-hydrothermal Synthesis of Cylindrical Mesoporous Materials: The Influence of the Surfactant/Silica molar ratio". D. Barrera, J. Villarroel Rocha, L. Marenco**,** M. Oliva, **K. Sapag.** Adsorption Science and Technology, V 29 N 10 p.975-988 (2011). *Factor de impacto:* ***0.606***
54. "A Study of the Adsorption properties of Single-Walled Carbon Nanotubes treated with Nitric Acid". A.A. García Blanco, J. Villarroel Rocha, J. Múnera, M. Nazzarro, G. Zgrablich, **K. Sapag**. Adsorption Science & Technology, Volume 29 Number 8 p.705-722 (2011). *Factor de impacto****: 0.606***
55. "Copper-containing spherical mesoporous silicates prepared by template-ion exchange: a multitechnique characterization and oxidation properties". C.Chanquía, A.Cánepa, J. Bazán-Aguirre, **K. Sapag**, E.Rodríguez-

Castellón, P.Reyes, E. Herrero, S.Casuscelli, G. Eimer. Microporous and Mesoporous Materials, Volume 151, 15 March (2012), p 2-12. *Factor de impacto:* ***3.285***

56. "Investigation of Iron Oxides Reduction by Ethanol as Potential Route to Produce Hydrogen". M.G. Rosmaninho, F.C.C. Moura, L.R. Souza, R.K. Nogueira, G.M. Gomes, J.S. Nascimento, M.C. Pereira, J.D. Fabris, J.D. Ardisson, M.S. Nazzarro, **K. Sapag**, M.H. Araújo, R.M. Lago. Applied Catalysis B: Environmental, 115-116, p.45-52, Apr (2012). *Factor de impacto:* ***5.625***
57. "Influence of the Cr loading in Cr/MCM-41 and TiO2/Cr/MCM-41 molecular sieves for the photodegradation of Acid Orange 7". V.Elías, Sabre, **K. Sapag**, S. Casuscelli, G. Eimer. Applied Catalysis A: General, Vol.413-414, p. 280-291 (2012). *Factor de impacto:* ***3.903***
58. "Al-pillared montmorillonite as a support for catalysts based on ruthenium sulfide in HDS reactions". A. Romero-Pérez, A. Infantes-Molina, A. Jiménez-López, E. Roca Jalil, K. Sapag, E. Rodríguez-Castellón. Catalysis Today 187 (2012) 88– 96**.** *Factor de impacto:* ***3.407***
59. "A comparative study of different microporous materials to store hydrogen by adsorption". A.A. García Blanco, A.F. Vallone, A. Gil, **K. Sapag**. International Journal of Hydrogen Energy, Vol. 37, No. 19, pp. 14870-14880 (2012). *Factor de impacto:* ***4.054***
60. "Adsorption microcalorimetry applied to the characterisation of adsorbents for CO_2 capture". F. W. Miranda da Silva, D. A. Soares Maia, Ronan S. Oliveira, J. C. Moreno-Piraján, **K. Sapag**, C. L. Cavalcante, G. Zgrablich and D. C. S. Azevedo. Can. J. Chem. Eng. 90:1372–1380, 2012. *Factor de impacto:* ***0.748***
61. "Facile preparation of hierarchical porous carbons with tailored pore size obtained using a cationic polyelectrolyte as a soft template". Juan Balach, L. Tamborini, **K. Sapag**, D. F. Acevedo, C. Barbero. Colloids and Surfaces A: Physicochemical and Engineering Aspects. Volume 415, 5 December 2012, Pages 343–348. Factor de Impacto : ***2.233***
62. "Improvement in the adsorption of thiabendazole by using aluminum pillared clays". M.E. Roca Jalil, R. S. Vieira, D. Azevedo, M. Baschini and **K. Sapag**. Applied Clay Science, Volume 71, January 2013, Pages 55-63. Factor de Impacto: ***2.474***
63. "Micro Mesoporous Activated Carbon from Coffee Husk as Biomass Waste for Environmental Applications". M. Goncalves, M. C. Guerreiro, L.C. A. Oliveira, C. Solar, M. Nazarro and **K. Sapag**. Waste Biomass Valor, June 2013, Volume 4, Issue 2, pp 395-400.
64. "Comparative Study of the Adsorption Equilibrium of CO2 on Microporous Commercial Materials at Low Pressures". S. I. Garcés, J. Villarroel-Rocha, **K. Sapag**, S. A. Korili, and A. Gil. Ind. Eng. Chem. Res. 2013, 52, 6785−6793. *Factor de Impacto:* ***2.237***
65. "Importance of the αs-plot Method in the Characterization of Nanoporous Materials". J. Villarroel-Rocha, D. Barrera, A. A. García Blanco, Ma. E. Roca Jalil and **K. Sapag.** Adsorp. Sc. & Tech., (2013), V. 31 N. 2+3, p.165-183. Factor *de Impacto:* ***0.606***.
66. "Activated carbon prepared from coffee pulp: potential adsorbent of organic contaminants in aqueous solution ". M. Gonçalves, M.C. Guerreiro, P. Honorato Ramos, L. C. Alves de Oliveira and **K. Sapag**. Water Science & Technology, (2013), Vol 68 No 5 pp 1085–1090. Factor *de Impacto:* ***1.122***.
67. "Controlling the morphology and pore size of mesostructured silica nanoparticles: the role of iron oxidation state". J. Coelho, M. Guedes, D. Barrera, **K. Sapag**, M. Pereira and L.C. Oliveira. Dalton Trans. (2013) Aug 21; 42(31):11271-80. Factor *de Impacto:* ***3.838***
68. "Pore size distribution of ordered nanostructured carbon CMK-3 by means of experimental techniques and Monte Carlo simulations". D Barrera, M Dávila, V Cornette, J C de Oliveira, RH López, **K Sapag**. Microporous and Mesoporous Materials, (2013). Vol 180, 71-78. *Factor de impacto:* ***3.285.***
69. "Effect of the Al/clay ratio on the thiabendazol removal by aluminum pillared clays". M. E. Roca Jalil, M. Baschini, E. Rodríguez-Castellón, A. Infantes Molina, **K. Sapag**. Applied Clay Science, January (2014), 245-253. Factor de Impacto: ***2.474***.
70. "Improvement in the Adsorption of Anionic and Cationic Dyes From Aqueous Solutions: A Comparative Study Using Aluminum Pillared Clays and Activated Carbon". J. E. Aguiar, B. T. C. Bezerra, A. C. A. Siqueira, D. Barrera, **K. Sapag**, D. C. S. Azevedo, S. M. P. Lucena and I. J. Silva Jr. Separation Science and Technology, March (2014), 741-751. *Factor de impacto:* ***1.20***
71. "Study of hydrogen adsorption properties on MCM-41 mesoporous materials modified with nickel". P. Carraro, V. Elías, A.A. García Blanco, **K. Sapag**, G. Eimer, M. Oliva. International Journal of Hydrogen Energy V:39 Issue 16 Mayo (2014) p 8749-87-53. *Factor de Impacto:* ***4.054***
72. "Synthesis and multi-technique characterization of nickel loaded MCM-41 as potential hydrogen-storage materials". P. Carraro, V. Elías, A. García Blanco, **K. Sapag**, S. Moreno, M. Oliva, G. Eimer. Microporous and Mesoporous Materials, 191 (2014) 103–111**.** *Factor de impacto:* ***3.285***
73. "Batch and Column Studies for the Removal of Lead from Aqueous Solutions Using Activated Carbons from Viticultural Industry Wastes" A.C. Deiana, M.G. Gimenez, S. Rómoli, M.F. Sardella and ***K. Sapag***. Adsorption Science & Technology, V 32 N 2&3 (2014) 181-195. Factor *de Impacto:* ***0.606***
74. "Adsorption of CO_2 on Amine–Grafted Activated Carbon". D. Bezerra, F. da Silva, P. de Moura1, **K. Sapag**, R. Vieira, E. Rodriguez-Castellon and D.C.S. de Azevedo. Adsorption Science & Technology, V 32 N 2&3 (2014) 141-151. *Factor de Impacto:* ***0.606***.

75. “Photothermal Desorption of Single-Walled Carbon Nanotubes and Coconut Shell-Activated Carbons Using a Continuous Light Source for Application in Air Sampling. Evan L. Floyd, **Karim Sapag**, Jonghwa Oh and Claudiu T. Lungu. The Annals of Occupational Hygiene Volume 58, Issue 7 (2014) 877-888. *Factor de Impacto: **2.157***
76. “Introducing a self-consistent test and the corresponding modification in the Barrett, Joyner and Halenda method for pore-size determination”. J. Villarroel, D. Barrera, **K. Sapag**. Microporous & Mesoporous Materials, 200 (2014) pp 68-78. Factor de Impacto: ***3.285***.
77. “Synthesis and textural characterization of a templated nanoporous carbon from MCM-22 zeolite and its use as adsorbent of amoxicillin and ethinylestradiol”. D. Barrera, J. Villarroel-Rocha, J. C. Tara, E. I. Basaldella, **K. Sapag**. Adsorption, November 2014, Volume 20, Issue 8, pp 967-976. Factor de Impacto: ***1.73***.
78. “Catalytic oxidation of aqueous sulfide promoted by oxygen functionalities on the surface of activated carbon briquettes produced from viticulture wastes”. A. C. Deiana, M. Gimenez, M.F. Sardella, **K. Sapag**, A. Luiza S. Masseo, A. P. C. Teixeira, Maria H. Araujo, Rochel M. Lago. J. Braz. Chem. Soc 2014, 25 (12), 2392-2398. Factor de Impacto: ***1.25***
79. “O_2 Adsorption on ZIF-8: Temperature Dependence of the Gate-Opening Transition”. Brice Adam Russell , Jhonny Villarroel-Rocha, **Karim Sapag** , and Aldo D Migone. J. Phys. Chem C DOI: **118** 28603-28608 (2014). Factor de Impacto: ***4.835***
80. “The Combined effect between Co and carbon nanostructures grown on cordierite monoliths for the removal of organic contaminants from liquid phase”. D.Costa, A. A, da Silva Oliveira, P. Souza, **K. Sapag** and F. Moura. New J. Chem., 2015, 39, 1438-1444. Factor de Impacto*: **3.159.***
81. “Conversion of viticultural industry wastes into activated carbons for removal of lead and cadmium”. F. Sardella, M. Gimenez, C. Navas, C. Morandi, C. Deiana, **K. Sapag**. Journal of Environmental Chemical Engineering, 2015, 3 (1), 253-260.
82. “Effect of Hydrogen in Adsorption and Direct Dissociation of CO on Fe (100) Surface: A DFT Study. S. Amaya-Roncancio, D. H. Linares, H. Anderson Duarte, G. Lener, **K. Sapag**. American Journal of Analytical Chemistry, 2015, 6, 38-4. Factor de Impacto: ***1.33***
83. “Influence of pH and antibiotic solubility on the removal of ciprofloxacin from aqueous media using montmorillonite”. M E. Roca Jalil, M. Baschini, **K. Sapag**. Applied Clay Science, v 114, pg 69-76 (2015).
84. “Tuning the target composition of amine-grafted CPO-27-Mg for capture of CO2 in post-combustion and air filtering conditions: a combined experimental and computational study”; M.C. Bernini, A.A. García Blanco, J. Villarroel-Rocha, D. Fairen-Jimenez, **K. Sapag**, A.J. Ramirez-Pastor, G.E. Narda; Dalton Transactions, Vol 44 (2015), p. 18970-18982.
85. “Influence of coadsorbed H in CO dissociation and CHn formation on Fe” (100): A DFT study. S. Amaya-Roncancio a, D.H. Linares, **K. Sapag**, M.I. Rojas. Applied Surface Science 346 (2015) 438–442.
86. “Catalytic oxidation of aqueous sulfide in the presence of ferrites (MFe 2 O 4, M= Fe, Cu, Co)”. IT Cunha, IF Teixeira, AS Albuquerque, JD Ardisson, WAA Macedo, H. S Oliveira, J. C. Tristão, **K. Sapag**, R. M. Lago Catalysis Today 259, Part 1, (2016), 222-227.
87. “Hydrophobic channels produced by micelle-structured CTAB inside MCM-41 mesopores: A unique trap for the hazardous hormone ethinyl estradiol”. T.A. Ribeiro-Santos, F. FulgêncioHenriques, J. Villarroel-Rocha, M. Carvalho Monteiro de Castro, W. Ferreira Magalhães, D. Windmöller, **K. Sapag**, R. Montero Lago, M.H. Araujo. Chemical Engineering Journal 283 (2016) 1203-1209.
88. “New insights on estimating pore size distribution of latex particles: Statistical mechanics approach and modeling”. M. Bergaoui, M. Khalfaoui, J. Villarroel-Rocha, D. Barrera, S. Al-Muhtaseb, E. Enciso, **K. Sapag**, A. Ben Lamine. Microporous and MesoporousMaterials 224 (2016) 360-371.
89. “A comparative study of several microporous materials to store methane by adsorption”; A.A. García Blanco, A.F. Vallone, S.A. Korili, A. Gil, **K. Sapag**; Microporous and mesoporous materials, Vol. 224 (2016), p. 323-331.
90. “An ordered mesoporous carbon modified electrochemical sensor for solid-phase microextraction and determination of triclosan in environmental samples”. M Regiart, JL Magallanes, D Barrera, J Villarroel-Rocha, **K Sapag**, J Raba, F. Bertolino. Sensors and Actuators B: Chemical, 232 (2016) 1-8.
91. “A comparative study of CO_2 diffusion from adsorption kinetic measurements on microporous materials at low pressures and temperatures”. SI Garcés-Polo, J Villarroel-Rocha, **K Sapag**, SA Korili, A Gil. Chemical Engineering Journal 302 (2016), 278-286.
92. “A DFT Study of Hydrogen Assisted Dissociation of CO by HCO, COH and HCOH Formation on Fe (100)”. S Amaya-Roncancio, DH Linares, HA Duarte, **K Sapag**. J. Phys. Chem. C, (2016), 120 (20), pp 10830–10837.
93. “Understanding the role of nickel on the hydrogen storage capacity of Ni/MCM-41 materials PM Carraro, AAG Blanco, FA Soria, G Lener, **K Sapag**, GA Eimer, MI Oliva. Microporous and Mesoporous Materials 231, 31-39, (2016)
94. “Tailoring biomass-based activated carbon for CH_4 storage by combining chemical activation with H3PO4 or ZnCl2 and physical activation with CO_2”. MJ Prauchner, **K Sapag**, F Rodríguez-Reinoso. Carbon 110, 138-147 (2016)

95. "Evaluation of Sorptive Capacity of Natural Clay, Pillared Clay, and Alga-modified Clay to Contain Oil Spills in Soil". O Katusich, A Vallone, H Blasetti, F Alassia, SM Ríos, **K Sapag** and Norma Nudelman. Am J of Modern Chem. Eng. 2 (1), 15-25, (2016)
96. "Mixed oxides tuned with alkaline metals to improve glycerolysis for sustainable biodiesel production". NF Balsamo, **K Sapag**, MI Oliva, GA Pecchi, GA Eimer, M Crivello. Catalysis Today, 279, 209-216, (2017).
97. "Microfluidic immunosensor based on mesoporous silica platform and CMK-3/poly-acrylamide-co-methacrylate of dihydrolipoic acid-modified gold electrode for cancer biomarker detection". M. Regiart, M. Fernández-Baldo, J. Villarroel-Rocha, G. A. Messina, F. A. Bertolino, **K. Sapag**, A. T. Timperman, J. Raba. Analytica Chimica Acta 963, 83-92, (2017)
98. "Effect of the support and promoters in Fischer-Tropsch synthesis using supported Fe catalysts". LA Cano, AAG Blanco, G Lener, SG Marchetti, **K Sapag**. Catalysis Today, 282, 204-213, (2017).
99. "Development of a nanostructured immunosensor for early and in situ detection of Xanthomonas arboricola in agricultural food production". M. Regiart, M. Rinaldi-Tosi, P. R Aranda, F. A. Bertolino, J. Villarroel-Rocha, **K. Sapag**, G. A Messina, J. Raba, M. A Fernández-Baldo. Talanta 175, 535-541 (2017).
100. "Metal-based mesoporous materials and their application as catalysts for the degradation of methyl orange azo dye". S Schlichter, **K Sapag**, M Dennehy, M Alvarez

J. of Env. Chem. Eng. Vol. 5, Issue 5, October 2017, Pages 5207-5214 (2017).

101. "Raw montmorillonite modified with iron for photo-Fenton processes: influence of iron content on textural, structural and catalytic properties". MA De León, M Rodríguez, SG Marchetti, **K Sapag**, R Faccio, M Sergio, J. Bussi. Journal of Environmental Chemical Engineering Volume 5, Issue 5, October 2017, Pages 4742-4750.
102. "Efectos de la temperatura de calcinación y la carga de carboximetilcelulosa de sodio en la síntesis de nuevas espumas de cerámica de bentonita". D Torres, J Villarroel-Rocha, A Gutarra, D Barrera, **K Sapag**. AVANCES Investigación en Ingeniería 2017, 14, 133-144.
103. Hydrogen adsorption of nickel-silica materials: Role of the SBA-15 porosity". P.M. Carraro, A.A. Garcia Blanco, C. Chanquía, **K. Sapag**, M.I. Oliva, G.A. Eimer. Mic. and Mesop. Materials (2017) 248, 62-71.
104. "Removal of Ciprofloxacin from Aqueous Solutions Using Pillared Clays". M.E. Roca Jalil, M. Baschini, **K. Sapag**. Materials (2017), 10 (12), 1345.
105. "Surface modified mesoporous nanocast carbon as catalyst for aqueous sulfide oxidation and adsorption of produced polysulfides". D. Barrera, F.G. de Mendonça, A.H. Castro, J.P. de Mesquita, R.M. Lago, **K. Sapag**. New J. Chem., 2018,42, 11708-11714.
106. "Adsorption of CO2 on mixed oxides derived from hydrotalcites at several temperatures and high pressures" S.I. Garcés-Polo, J. Villarroel-Rocha, **K. Sapag**, S.A. Korili, A. Gil. Chem. Engi. Journal, Volume 332, 15 January 2018, Pages 24-32.
107. "Carbon monoxide adsorption in ZIF-8: Kinetics and equilibrium". D.H. Gallaba, J. Villarroel-Rocha, **K. Sapag**, A.D. Migone. Mic. and Mesop. Mat. (2018) 265, 227-233.
108. "DFT Study of Hydrogen Adsorption on Ni/graphene'. S. Amaya-Roncancio, A. A. Garcia Blanco, D.H. Linares, **K. Sapag**. Applied Surface Science, Volume 447, 31 July 2018, Pages 254-260.
109. "Mesoporous immunosensor applied to zearalenone determination in Amaranthus cruentus seeds". M. Regiart, O. Fernández, A. Vicario, J. Villarroel-Rocha, **K. Sapag**, G. A. Messina, J. Raba, F. A Bertolino. Microchemical Journal. Volume 141, September 2018, Pages 388-394.
110. "Comparative study of hydrogen storage on metal doped mesoporous materials". P.M Carraro**, K. Sapag**, M.I. Oliva, G.A. Eimer. Chemical Physics Letters 701, 93-97 (2018)
111. "Nanostructured catalysts applied to degrade atrazine in aqueous phase by heterogeneous photo-Fenton process". T.B. Benzaquén, D.A. Barrera, P.M. Carraro, **K. Sapag**, O.M. Alfano, G.A. Eimer. Environmental Science and Pollution Research, 1-10 (2018).
112. "Dandelion-Like Microspherical MCM-22 Zeolite Using BP 2000 as a Hard Template". A. Schwanke, J. Villarroel-Rocha, **K. Sapag**, U. Díaz, A. Corma, S. Pergher. ACS Omega 3 (6), 6217-6223. (2018).
113. "A silica/carbon composite as anode for lithium-ion batteries with a large rate capability: Experiment and theoretical considerations". G. Lener, A.A. Garcia-Blanco, O. Furlong, M. Nazzarro, **K. Sapag**, D.E. Barraco, E.P.M. Leiva. Electrochimica Acta 279, 289-300. (2018).
114. "Applicability of activated carbon obtained from peach stone as an electrochemical sensor for detecting caffeine". J. Arroyo-Gómez, D. Villarroel-Rocha, K.C. de Freitas-Araújo, C. A. Martínez-Huitle, **K. Sapag**. Journal of Electroanalytical Chemistry 822, 171-176. (2018).
115. "CO_2 gas-adsorption calorimetry applied to the study of chemically activated carbons. D.A.S. Maia, J.C.A. de Oliveira, M.S. Nazzarro, **K. Sapag**, R.H. López, S. M. Pereira de Lucena, D. C. Silva de Azevedo. Chemical Engineering Research and Design 136, 753-760. (2018).
116. "Basic Treatment in Natural Clinoptilolite for Improvement of Physicochemical Properties" V. de Souza, J Villarroel-Rocha, M de Araújo, **K Sapag**, S Pergher. Minerals 8 (12), 595. 2018.
117. "Synthesis and characterization of pure and Al-substituted akaganeites and evaluation of their performance to adsorb As (V)". A.E. Tufo, A.L. Larralde, J. Villarroel-Rocha, **K. Sapag**, E.E. Sileo. Journal of Environmental Chemical Engineering 6 (6), 7044-7053. 2018.

118. “Limonene oxyfunctionalization over Cu-modified silicates employing hydrogen peroxide and t-Butyl hydroperoxide: Reaction pathway analysis”. V.M Vaschetti, A.L. Cánepa, D. Barrera, K. Sapag, G.A. Eimer, S.G. Casuscelli. Molecular Catalysis. https://doi.org/10.1016/j.mcat. 2018.
119. “On the computer simulations of carbon nanoparticles porosity: statistical mechanics model for CO2 and N2 adsorption isotherms”. M. Bergaoui, C. Aguir, M. Khalfaoui, J. Villarroel-Rocha, L. Reinert, E. Enciso, L. Duclaux, D. Barrera, **K. Sapag**. Adsorption 24 (8), 769-779. 2018.
120. “Insight into surface and structural changes of montmorillonite and organomontmorillonites loaded with Ag”. A.M.F. Solarte, J. Villarroel-Rocha, C.F. Morantes, M.L. Montes, K Sapag, G. Curutchet, R. M. Torres Sánchez. Comptes Rendus Chimie, 22 (2-3), 142-153, 2018.
121. “Natural and Modified Montmorillonite Clays as Catalysts for Synthesis of Biolubricants”. F. Luna, J. Cecilia, R. Saboya, D. Barrera, **K. Sapag**, E. Rodríguez-Castellón, Célio Cavalcante. Materials 11 (9), 1764. 2018.
122. “Silica Pillared Montmorillonites as Possible Adsorbents of Antibiotics from Water Media”. M. E. Roca Jalil, F. Toschi, M. Baschini, **K. Sapag**. Applied Sciences 8 (8), 1403.2018.
123. “Influence of the activation method of agro-industrial wastes in the removal of lead”. M Gimenez, F Sardella, C Deiana, **K Sapag**. Desalination and Water treatment 108, 223-234. 2018.
124. “Flexible ZIFs – probing guest-induced flexibility with CO2, N2 and Ar adsorption”. A. Noguera-Díaz, J. Villarroel-Rocha, V. P. Ting, N. Bimbo, K. Sapag, T. J. Mays. Journal of Chemical Technology & Biotechnology. 94 (12), 3787-3792 2019.
125. “Insight into surface and structural changes of montmorillonite and organomontmorillonites loaded with Ag”. A.M.F. Solarte, J. Villarroel-Rocha, C.F. Morantes, M.L. Montes, **K Sapag**, G. Curutchet, R. M. Torres Sánchez. Comptes Rendus Chimie, 22 (2), 142-153. 2019.
126. “CMK-3 nanostructured carbon: Effect of temperature and time carbonization on textural properties and H2 storage” K Montiel-Centeno, D Barrera, J Villarroel-Rocha, JJ Arroyo-Gómez, M.S. Moreno, **K. Sapag**. Chemical Engineering Communications, 1-15, 2019.
127. “Nanostructured carbons modified with nickel as potential novel reversible hydrogen storage materials: Effects of nickel particle size”. P Carraro, AA García Blanco, G Lener, D Barrera, S Amaya-Roncancio, C. Chanquía, H Troiani, **K Sapag**, M.I. Oliva, G.A. Eimer. Microporous and Mesoporous Materials 279, 4562 ,2019.
128. “Improved template–Ion exchange synthesis of Cu-nanostructured molecular sieves” VM Vaschetti, BM Viola, D Barrera, **K Sapag**, GA Eimer, AL Cánepa, S. Casuscelli. Microporous and Mesoporous Materials.Vol. 284, Pages 410-420, 2019.
129. “Nanostructured catalysts applied to degrade atrazine in aqueous phase by heterogeneous photo-Fenton process”. TB Benzaquén, DA Barrera, PM Carraro, **K Sapag**, OM Alfano, GA Eimer. Environmental Science and Pollution Research 26 (5), 4192-4201,2019.
130. “Arsenic (V) removal from aqueous solutions using natural clay ceramic monoliths” C García-Carvajal, J Villarroel-Rocha, D Curvale, MM Barroso, **K Sapag**. Chemical Engineering Communications, 1-12. 2019.
131. “Hierarchical nanostructured carbons as CO2 adsorbents”. KS Kiara Montiel-Centeno, Deicy Barrera, Jhonny Villarroel-Rocha, M. Sergio, **K. Sapag**. Adsorption, 25, pages1287–1297(2019).
132. “Effect of nickel loading on hydrogen adsorption capacity of different mesoporous supports”. PM Carraro, FA Soria, EG Vaschetto, **K Sapag**, MI Oliva, GA Eimer. Adsorption, Adsorption 25 (7), 1409-1418, 2019.
133. “Incorporation of Brazilian Diatomite in the Synthesis of An MFI Zeolite”. P Vinaches, AJ Schwanke, CW Lopes, I Souza, J Villarroel-Rocha, **K. Sapag**, S. BC Pergher. Molecules 24 (10), 1980, 2019.
134. “Carbon foams from sucrose employing different metallic nitrates as blowing agents: Application in CO_2 capture” MJG De Araújo, J Villarroel-Rocha, VC De Souza, **K Sapag**, SBC Pergher. Journal of Analytical and Applied Pyrolysis. 141, 104627, 2019
135. “Organic monolithic capillary columns coated with cellulose tris (3, 5-dimethylphenyl carbamate) for enantioseparations by capillary HPLC”. RN Echevarría, S Keunchkarian, J Villarroel-Rocha**, K Sapag**, M Reta. Microchemical Journal, Vol 149, pag 104011, 2019.
136. “PtPdNi Catalysts Supported on Porous Carbon for Ethanol Electro-oxidationJJ Arroyo-Gómez, D Barrera, RM Castagna, JM Sieben, AE Alvarez, Marta M E Duarte, **Karim Sapag**. ChemCatChem 11 (15), 3451-3464. 2019.
137. “Confined Iron Nanoparticles on Mesoporous Ordered Silica for Fischer–Tropsch Synthesis”. CF Toncón-Leal, S Amaya-Roncancio, AAG Blanco, MS Moreno, **K Sapag**. Topics in Catalysis, 62 (12-16), 1086-1095.2019
138. “Porous MoxCy/SiO2 Material for CO2 Hydrogenation”. AAG Blanco, OJ Furlong, DJ Stacchiola, **K Sapag**, MS Nazzarro. Topics in Catalysis, 62 (12-16), 1026-1034. 2019.
139. “Incorporation of Brazilian Diatomite in the Synthesis of An MFI Zeolite”. P Vinaches, AJ Schwanke, CW Lopes, I Souza, J Villarroel-Rocha, **K. Sapag**, S. BC Pergher. Molecules 24 (10), pag1980, 2019.
140. Editorial for the special issue “SAASA 2018” in “Adsorption” by guest editors Carlos Wexler and Karim Sapag. C Wexler, **K Sapag**. Adsorption, 1-2, 2019.
141. “Insight into the Mechanism of Oxygen Reduction Reaction on Micro/Mesoporous Carbons: Ultramicropores versus Nitrogen-Containing Catalytic Centers in Ordered Pore Structure”. D Barrera, M Florent, **K. Sapag**, TJ Bandosz. ACS Applied Energy Materials 2 (10), 7412-7424, 1, 2019.

142. “Comparative characterization study of diatomites from different Brazilian locations and their application in dye adsorption”. S H da Silva Filho, P Vinaches, H. LG Silva, J. Villarroel-Rocha, **K. Sapag**, S. BC Pergher, SN Applied Sciences 1 (11), 1471, 2019.
143. “Modification of natural Clinoptilolite zeolite by combined treatment (acid-alkaline)”. Vanessa Castro de Souza; Jhonny Villarroel-Rocha; Maria José Gomes de Araújo; **Karim Sapag**; Sibele B. C. Pergher. PERSPECTIVA, Erechim. v. 43, n.163, p. 85-97, setembro/2019.
144. “Micro and Mesoporous Materials in Energy and Environmental Applications” **K. Sapag**, D. Barrera. An. Asoc. Quim. Argent. 2019, 106(2), 1-19
145. “Fe/SBA-15: Characterization and its application to a heterogeneous solar photo-Fenton process in order to decolorize and mineralize an azo dye”. JJ Arroyo-Gómez, CF Toncón-Leal, AJ dos Santos, MS Moreno, **K Sapag**, CA Martínez-Huitle. Materials Letters: X, 100034, 2019. Volume 5, March 2020, 100034
146. “Direct versus hydrogen-assisted dissociation of CO on iron surfaces: Kinetic Monte Carlo and microkinetic modeling”. S Amaya-Roncancio, JJ Arroyo-Gómez, DH Linares, **K Sapag**. Journal of Molecular Structure 1201, 127188, 2020.
147. “Synthesis of Fe2SiO4-Fe7Co3 Nanocomposite Dispersed in the Mesoporous SBA-15: Application as Magnetically Separable Adsorbent”. MTP da Silva, FF Barbosa, MA Morales Torre, J Villarroel-Rocha, **K. Sapag**, S. BC Pergher, T. Pinheiro Braga. Molecules 25 (4), 1016. 2020.
148. “Synthesis of micro–mesoporous CPO-27-Mg@ KIT-6 composites and their test in CO 2 adsorption”. D Villarroel-Rocha, AA Godoy, C Toncón-Leal, J Villarroel-Rocha, MS Moreno, Maria C Bernini, Griselda E Narda, **K Sapag**. New Journal of Chemistry. Issue 24, Page 9945 to 10174, 2020.
149. “Limonene oxyfunctionalization over Cu-modified silicates employing hydrogen peroxide and t-Butyl hydroperoxide: Reaction pathway analysis”. VM Vaschetti, AL Cánepa, D Barrera, **K Sapag**, GA Eimer, SG Casuscelli. Molecular Catalysis 481, 110234, 2020.
150. “High nitrogen content carbons: morphological and chemical changes with synthesis temperature and application in Lithium-Sulfur batteries”. AN Arias, J Villarroel-Rocha, **K Sapag**, MF Mori, GA Planes, AY Tesio, V. Flexer. Electrochimica Acta, Volume 359, 1 November 2020, p.136942.
151. Insensitivity in the pore size distribution of ultramicroporous carbon materials by CO_2 adsorption”. V Cornette, J Villarroel-Rocha, **K Sapag**, RD Mons, JP Toso, RH López. Carbon 168, 508-514, 2020.
152. “Sandwich-Type Electrochemical Paper-Based Immunosensor for Claudin 7 and CD81 Dual Determination on Extracellular Vesicles from Breast Cancer Patients”. F. G. Ortega, M.D. Regiart, A. Rodríguez-Martínez, D. de Miguel-Pérez, M. J Serrano, J.A Lorente, G. Tortella, O. Rubilar, **K. Sapag**, M. Bertotti, M.A Fernández-Baldo. Anal. Chem. 2021, 93, 2, 1143–1153.
153. “Textural and photocatalytic characteristics of iron-cobalt based nanocomposites supported on SBA-15: Synergistic effect between Fe^{2+} and Fe^0 on photoactivity”. MTP da Silva, J Villarroel-Rocha, CF Toncón-Leal, FF Barbosa, M Oliveira Miranda, M A Morales Torres, **K Sapag**, S BC Pergher, T. Pinhero Braga. Microporous and Mesoporous Materials, 110582, Vol 310, 2021.
154. “Synthesis conditions impact on Sr 11 Mo 4 O 23 electroceramic: crystal structure, stability and transport properties”. C. D. Miranda, D. Villarroel-Rocha, **K. Sapag**, C. A. López, J. C. Pedregosa, J. A. Alonso. RSC Advances 11 (23), 13814-13820, 2021.
155. “Effect of the Ethanol/BTC Ratio on the Methane Uptake of Mechanochemically Synthesized MOF-199”. M. L. Kim, D. Barrera, M. Kimura, J. P. Hinestroza, **K. Sapag**, E. H. Otal. Chem Asian J. 2021, 16, 1086–1091
156. “Texture and surface sites of treated and as-prepared SWNT using experimental and simulation methods”. A. G. Albesa, A. A. García Blanco, D. A Soares Maia, J. Villarroel-Rocha, J. L. Vicente, **K. Sapag**. Adsorption 27, pages 909–923 (2021). https://doi.org/10.1007/s10450-021-00317-9.
157. “Removal efficiency of As (III) from aqueous solutions using natural and Fe (III) modified bentonites”. E Baigorria, L Cano, **K Sapag**, V Alvarez. Environental Technology, in press.
158. “One-pot synthesis of hierarchical porous carbons with extended ultramicropores: new prospective materials for supercapacitors”. A. N. Arias, J. Villarroel-Rocha, **K. Sapag**, M. F. Mori, G. A. Planes, V. Flexer, A. Y. Tesio. Carbon Trends, 2021, in press.
159. “Insights of adsorption isotherms with different gases at 77 K and their use to assess the BET area of nanoporous silica materials”. J Villarroel-Rocha, D Barrera, JJ Arroyo-Gómez, **K Sapag**. Adsorption, 1-13, 2021. https://doi.org/10.1007/s10450-021-00339-3
160. “Characterization of mesoporous region by the scanning of the hysteresis loop in adsorption–desorption isotherms”. CF Toncón-Leal, J Villarroel-Rocha, MTP Silva, TP Braga, **K Sapag**. Adsorption, 1-14. https://doi.org/10.1007/s10450-021-00342-8
161. “Fe, Co and Fe/Co catalysts supported on SBA-15 for Fischer-Tropsch Synthesis”. CF Toncón-Leal, JF Múnera, JJ Arroyo-Gómez, **K Sapag**. Catalysis Today, 2021, in press.
162. “Novo Adsorvente Nanoestruturado Híbrido Do Tipo Amina/Kit-6 Para Captura De Co2”.FRD Fernandes, FGH Pinto, J Villarroel-Rocha, **K Sapag**, LD Souza, V.PS Caldeira, A.GD Santos. Química Nova 44, 1117-1123, 2021.

163. “Incorporation of Co in Different Stages of the Synthesis of Al-PILC and Its Effect as a Fischer–Tropsch Catalyst”. MG Amaya, AA García Blanco, C Toncón-Leal, **K Sapag**. Ind. Eng. Chem. Res. 2021, 60, 51, 18929–18937
164. “Synthesis of MOF-5 using terephthalic acid as a ligand obtained from polyethylene terephthalate (PET) waste and its test in CO2 adsorption”. D Villarroel-Rocha, MC Bernini, JJ Arroyo-Gómez, J Villarroel-Rocha, **K. Sapag**. Brazilian *Journal of Chemical Engineering (2022)*. https://doi.org/10.1007/s43153-021-00192-5
165. “Development of ceramic honeycomb monolith from natural zeolite tested as adsorbent to remove methylene blue in aqueous media”. C García-Carvajal, J. Villarroel-Rocha, V. Castro de Souza, **K. Sapag**. *Environmental Science and Pollution Research* (2022) https://doi.org/10.1007/s11356-022-18569-5
166. “Diffusion of Hydrogen, Carbon and Oxygen in the Presence of Hydrogen Coadsorbed onto Iron Surfaces”. S Amaya-Roncancio, D Linares, K Sapag, E Restrepo-Parra. *Journal of Molecular Structure (2022)*. https://doi.org/10.1016/j.molstruc.2022.132397
167. Photothermal Desorption of Toluene from Carbonaceous Substrates Using Light Flash EL Floyd, J Oh, K Sapag, TM Oni, JS Shedd, CT Lungu. Nanomaterials 12 (4), 662. 2022.
168. Fe-and SiFe-pillared clays from a mineralogical waste as adsorbents of ciprofloxacin from water. AA Maggio, MER Jalil, J Villarroel-Rocha, K Sapag, MT Baschini. Applied Clay Science 220, 106458. 2022.