

## Curriculum vitae

### Personal data

Name: Dr. Janos Lakatos

Office: University of Miskolc, Institute of Chemistry

### Employments

1980-2000 researcher (last position at 2000: senior res. associate) at Research Institute of Applied Chemistry, Miskolc University (The former Institute of Petroleum Recovery of HAS)

2000- lecturer (associate professor) Institute of Chemistry, University of Miskolc ( 2011-2015 Head of the Institute of Chemistry).

### Scientific degree

1980 MSc of Chemistry (University of Kossuth, Debrecen) Dipl. Chemist.

1995 PhD/ CSc of Chemical Sciences, 1995. (University . of Debrecen)/ (Scientific . Qualification . Board of Hungarian Academy of Sciences)

### Scientific activities

1. Analytical Chemistry: (Atomic Spectroscopy, Thermal analysis)

Direct analysis of dispersed systems, sample introduction, aerosol production, characterisation and transport. Characterisation of aerosol and atom distribution in analytical flames.

2. Physical Chemistry: (Gas and Ion sorption phenomena)

Study of carbon structures: pore characterisation and ion sorption studies on coals, chars and activated carbons, coal bed methane drainage.

Environmental Chemistry: Application of natural sorbents: coals, clays, zeolites, biomass in the environmental protection. Development of sorbent for gas and water cleaning and sorbents Permeable Reactive Barrier (PRB) applications.

### Professional experiences abroad

1. (1996), Post doc Fellow: Royal Society post. doc. Fellowship, Strathclyde University, Fuel Research Group Glasgow , (Prof. C. E. Snape), (12 months),

2. (1997), Post doc. Fellow: Hung. Educ. Ministry Fellowship, University of Mining and Metallurgy, Dept. of Energy and Fuel, Cracow, Poland, Prof. Janina Milewska-Duda), ( 3 months),

3. (2001) Invited researcher (Research Associate): University of Nottingham, School of Chemical Environmental and Mining Engineering (15 months)

4. (2002-2007) Invited researcher (Research Associate): (two or one month/year) University of Nottingham, School of Chemical Environmental and Mining Engineering ( 7 months).

### Membership

2002-2009 President of the Working Committee of Anal. Chemistry section of Chemistry Branch of the Regional Organisation of the Hungarian Academy of Sciences (MTA MAB)

2009- President of the Chemistry Branch Committee of the Regional Organisation of the Hungarian Academy of Sciences (MTA MAB)

### Published reports

Number of Scientific Research reports: 24 ( Industrial, Hungarian Research Fundation (OTKA), EU Coal and Steel Comm., INNOCHECK (HU), etc.)

### The most relevant publications

1. J. Lakatos : Geothermic Hydrochemistry (2014). E- learning materials, Digital Textbook Library [http://www.tankonyvtar.hu/hu/tartalom/tamop412A/2011\\_0059\\_SCORM\\_MFAKK5061-EN/sco\\_01\\_09.htm](http://www.tankonyvtar.hu/hu/tartalom/tamop412A/2011_0059_SCORM_MFAKK5061-EN/sco_01_09.htm)

2. Lakatos, J., Bánhidi, O., Lengyel, A., Lovrity, Z., Muránszky, G., Analitika Anyagmérnököknek Nemzeti Tankönyvkiadó, Budapest, Elektronikus tankönyv, (2011).

[http://www.tankonyvtar.hu/hu/tartalom/tamop425/0001\\_1A\\_A3\\_01\\_ebook\\_analitikai\\_kemia\\_anyagmernokoknek/adatok.html](http://www.tankonyvtar.hu/hu/tartalom/tamop425/0001_1A_A3_01_ebook_analitikai_kemia_anyagmernokoknek/adatok.html)

[http://www.tankonyvtar.hu/hu/tartalom/tamop425/0001\\_1A\\_A3\\_01\\_ebook\\_analitikai\\_kemia\\_anyagmernokoknek\\_video/adatok.html](http://www.tankonyvtar.hu/hu/tartalom/tamop425/0001_1A_A3_01_ebook_analitikai_kemia_anyagmernokoknek_video/adatok.html)

3. C. E. Snape, C. Sun, J. Lakatos, R. Perry: Sorbent Composition WO patent: WO 2008/093137 A1. Publ. date: 7 Aug. 2008.
4. J. Lakatos, Cheng-gong Sun, Ron Perry, Mark Kennedy and C. E Snape: Ultra high capacity coprecipitated manganese oxide sorbents for oxidative mercury capture. 237th ACS meeting Spring, Salt Lake City (2009)
5. J. Lakatos, I. Szabó, B. Csőke, C. E Snape: Coals and biomass as active materials for permeable reactive barriers. *Anyagmérnöki Tudományok*, Miskolc, 33 vol. 13-22 (2007).
6. Lakatos J. *Atomabszorpciós Spektrometria.*: 4. fejezet. 137-187 old. Záray Gy.(szerk) *Az elemanalitika korszerű módszerei.* Akadémiai Kiadó, (2006).  
(Chapter 4: Atomic Absorption Spectrometry, In the book of *Modern Methods Elemental Analysis.*)
7. Filep Gy. Kovács B., Lakatos J., Madarász T., Szabó I.: *Szennyezett területek kármentesítése* ., Miskolci Egyetemi Kiadó, 2002. ( Lakatos J.A szennyezett területek kutatásának analitikai kémiai alapjai, 3. fejezet ) (Ch. 3. Investigation of contaminated lands by analytical chemical methods)
8. I. Robles, E. Bustos, J. Lakatos: Adsorption study of mercury on lignite in the presence of different anions. *Sustainable Environment Research* 26 (2016)136-141.
9. I. Robles, J. Lakatos, P. Scharek, Z. Plank, G. Hernandez, S. Solis, E Bustos. Characterisation and remediation of soils and sediments polluted with mercury: Occurrence, transformations, environmental considerations and San Joaquin's Sierra Gorda case. Chapter 29 p.827-850. in the *Environmental Risk assessment in Soil Contamination.* INTECH Open Sci Publication (2014).
10. Gabor Mucsi, Agnes Szenczi, Zoltán Molnar, Janos Lakatos: Structural formation and leaching behavior of mechanically activated lignite fly ash based geopolymer, *Journal of Environmental Engineering and landscape Management* 24:(1) pp. 48-59. (2016).
11. Lakatos J. Madarász T. Ásványi szenek hasznosítása a szennyezések tovaterjedését gátló technológiákban. *Műszaki tudomány az észak-kelet magyarországi régióban.* Szerk. Pokorádi L. p. 401-410, (2011) DAB *Műszaki Bizottság Kadványa* ISBN 978-963-7064-25-8. *Elektronikus Műszaki Füzetek*, 9. kötet, Kiadja: MTA Debreceni Akadémiai Bizottság Műszaki Szakbizottsága. Szerkeszti: Prof. Dr. Pokorádi László. HU ISSN 2060-7954
12. Lakatos J. Baranyai V. Zs., Lengyel A. A vörösiszapban található elemek mobilizálhatósága. VII. Kárpát medencei Környezettudományi Konferencia Kolozsvár, 556-560, Abel Kiadó, Kolozsvár,(2011). ISSN 1842- 9815.
13. J. Lakatos, M Ulmanu, I. Anger, C. E. Snape: Comparison of sorption of Cu(II), Cr(III) and Cr(VI) on inorganic and organic sorbent. *Proc. of First Internat. Conf. of Envir. Remed. and Assesm.*, Bucharest (2003), 123-132
14. J. Lakatos, S.D. Brown, C.E.Snape: Application of Coal and Biomass Type Sorbents for Hg(II) and Cr(VI) removal in the Environmental protection Technology. *Progress in Mining and Oilfield Chemistry*, Vol 1. Akadémiai Kiadó, Budapest, p.327-336 (1999).
15. J. Lakatos: Study of the Ion Exchange Properties of Hungarian Coals, p. 549-556. Ed.: W. S. Blaschke, *New Trends in Coal Preparation Technologies and Equipments*, Gordon and Breach Publishers, Amsterdam,(1996).