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*Date of birth :*            *May 26<sup>th</sup>, 1954*

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***Chairman of the Slovak National Committee of IUPAC,***

***Affiliate Member of the Inorganic Chemistry Division of IUPAC,***

***Affiliate Member & Division Representative to the Interdivisional Committee on Terminology,***

***Symbols and Nomenclature of IUPAC.***

**Present posts and interests**

from 1987 :    **Research worker**, Institute of Inorganic Chemistry SASci, Bratislava;  
*Cement Chemistry; Syntheses and related extensive Study of Model Macro Defect Free Materials (MDF), the role of thaumasite in sulfate attack of concrete.*

from 1992 :    **Head of the projects** of the Slovak Grant Agency for Science (VEGA).

from 1994 :    **Slovak-end coordinator** of the joint projects of the Institute of Inorganic Chemistry SASci, University of Exeter and University of Surrey, U.K.

**from 2009 :**    **Associate professor**, Department of Inorganic, Chemistry Faculty of Science, Comenius University, Bratislava; *start of the full-time engagement with university teaching (chemistry courses of Bc. and MSc. levels, tutorial panels of PhD level), a choice of research interests (cf. above & in the List of selected publications) continues.*

from 2012 :    **Chairman** of the Slovak National Committee of IUPAC.

**Qualifications, memberships & awards**

Chemistry (1<sup>st</sup> class)

Bratislava, 1977

RNDr.

Bratislava, 1980

PhD (CSc.)

Bratislava, 1982

Member of Slovak chemical society

- from 1978

Affiliate Member [Fellow] of the IUPAC

- from 1987 [ from 2002]

Member [life member] of the Institute of Materials (U. K.)

- from 1995 [from 2003]

Fellow (F.W.I.F.) of the World Innovative Foundation	- from 2001
Slovak National Representative [ <u>Titular Member</u> ] in the Inorganic Chemistry Division of IUPAC	- from 2004 [ <u>from 2012</u> ]
Associate Member & Division Representative (Div II) to the Interdivisional Committee of Terminology, Symbols and Nomenclature of IUPAC	- from 2014
Member of the Inorganic Chemistry & [Solid State and Materials Chemistry] Divisions of EuChemS	- from 2007 [from 2013]
Chairman of the Slovak National Committee of IUPAC	- from 2012
Member of Slovak silicate society	- from 2007
Medal of Slovak Chemical Society	2012
Life member of Slovak Chemical Society	2013

**Notes :** *i) The scientific results, mainly on the presence of phosphorus atoms in Al(Fe)-O-C(P) cross-links in the hardened material with the additional bonds impregnating the surface of cement grains, have been adapted for the chapter "MDF cement"; In: "Special Inorganic Cements" (I. Odler), series of Modern Concrete Technology, E & FN Spon, London, New York, 2000.*

*ii) Acted as the Conference editor of two issues of Pure & Applied Chemistry – 2009, Vol. 81, Issue 8, pp. 1345-1534 and 2015, Vol.87, Issue 3, pp. 219-306, both devoted to Invited and Key-note lectures of SSC 2008 and SSC 2014 conferences.*

#### Previous posts and interests

- 1977-1981 : **Research fellow**, Department of Inorganic Chemistry Comenius University, Bratislava; *Vanadium Bronzes and Polyvanadates of Calcium Metal Group.*
- 1982-1987 : **Junior research worker**, Institute of Inorganic Chemistry SASci, Bratislava *Chemistry of Cementitious Materials, Syntheses and Hydration Studies.*
- 1992 : **Honorary Research Fellow** (University of Exeter, U. K.)
- 1992 : **DAAD Visiting Scientist** (Universitat Clausthal-Zellerfeld, F. R. G.)
- 1993 - 1999 : **Academic Visitor** (Univ. of Exeter & Surrey, U. K., medium term visits)
- 1995 - 1999: **Deputy of Slovak national coordinator** of the E C R & D Project *"Novel Low-energy Cements based on Belite".*
- 1996 - 2000: **Member of the RILEM Technical Committee** *"Qualitative Identification of Clinkers and Cements".*

#### List of selected most important publications ( of the total number of around 120 scientific papers,

1. M.Drabik, I.Kapralik, G.Oliw, W.Wieker: Conversion and heat evolution during hydration of aluminium and iron containing clinker phases in presence of sulphates; *J. Therm. Anal.* 33, 679 - 684 (1988)
2. M.Drabik, M.Kristofik, L.Galikova, S.Sahu: Chemistry and porosity in modeled MDF cement minerals; communication paper in *Proc. of 9th ICCI*, vol. III., 386 - 392 (NCB Publ., New Delhi 1992)
3. M.Drabik, L.Galikova, M.Kubranova, R.C.T.Slade: Studies of model Macroscopic-defect-free materials. Part 1.; *J. Mater. Chem.* 4, 265-270 (1994)

4. M.Drabik, M.Frtalova, L.Galikova, M.Kristofik: Studies of model Macroscopic-defect-free materials. Part 2.; *J. Mater. Chem.* 4, 271-274 (1994)
5. M.Drabik, L.Galikova, I.Odler: Chemical interactions, open porosity and strength of some modelled MDF materials; *Ceramics-Silikaty* 38, 127-131 (1994)
6. M.Drabik, R.C.T.Slade: Interaction of soluble polymers and hydrated cement in the model MDF subsystem C4A3S-hpmc-(poly-P)-H: Investigations by nuclear magnetic resonance spectroscopy; *Br. Ceram. Trans.* 94, 242-245 (1995)
7. M.Drabik, L.Galikova, Z.Sadlekova, M.Kubranova: Cross-linking of atoms and thermal stability of new MDF compositions; *J. Therm. Anal.* 46, 479-487(1996)
8. M.Drabik, L.Galikova, R.C.T.Slade: Sulfobelitic clinker and polyphosphate glasses - new MDF-related composition; *Proc. of Maeta Workshop on High Flexural Polymer- cement composite*, 107-117 (Maeta Publ., Sakata 1996)
9. M.Drabik, L.Galikova, G.B.Hix, A.G.Pearce, R.C.T.Slade, K.E.Young: Model MDFs related to sulfobelitic systems; studies by Fe mossbauer and electrical impedance techniques; *Cement & Concrete Research*, 27, 127-135 (1997)
10. M.Drabik, L.Galikova, F.Hanic, R.C.T.Slade: MDF-related systems based on sulfobelitic clinker / hydroxypropylmethyl cellulose / polyphosphate glasscompositions; *Proc. of 10th ICCG*, vol.3, pap. iii011 (ed.: H.Justnes, Goteborg 1997)
11. M.Drabik, P.Zimmermann, R.C.T.Slade, Chemistry of MDF materials based on sulfoaluminateferritebelitic clinkers: syntheses and tests of moisture resistance, *Advances in Cement Research* 10, 129-133 (1998)
12. M.Drabik, L.Galikova, P.Zimmermann, Moisture attack on the advanced cement-based MDF materials; thermoanalytical study, *J. Therm. Anal. & Calor.* 56, 117-124 (1999)
13. M.Drabik, L.Galikova, F.Hanic, J.H.Sharp: MDF-related compositions based on novel low-energy clinkers; *Chem. Papers*, 51, 363 - 366 (1997)
14. M.Drabik, L.Galikova, R.C.T.Slade, K.E.Young, MDF materials related to sulfobelitic systems: Moisture resistance and conductivity study ;
  - *Building Research Journal* 47, 135-142 (1999),
  - *invited lecture to 14<sup>th</sup> Ibausil, Weimar, Germany (September 2000)* .
15. M.Drabik, S.C.Mojumdar, L.Galikova, Changes of thermal events of MDF cements due to the deterioration in the moist atmosphere; *Cement & Concrete Research*, 31, 743-747 (2001)
16. M.Drabik, Macro-defect-free cements, cross-links coordination insight; *in : Challenges for Coordination Chemistry in the New Century (Ed.: M.Melnik & A.Sirota)*, Slovak Technical University Press, Bratislava 2001, pgs. 441-446.
17. M.Drabik, L.Galikova, S.C.Mojumdar, Macrodefect-free cements: Chemistry and impact of the environment, *Key Eng. Mater.* 206-213, 1867-1870 (2002)
18. M.Drabik, S.C.Mojumdar, R.C.T.Slade, Prospects of novel Macro-defect-free cements for the new millenium, *Ceramics-Silikaty*, 46, 68-73 (2002)

19. M. Drábik, L. Gáliková, Methods of Thermal Analysis in the Detection of Thaumasite and its Presence in the Sulfate-attacked Concrete, *Solid State Phenomena*, 90-91, 33-38 (2003)
20. Series of lectures given during **a)** Cement & Concrete Science conferences (1993 - 2000) of the Institute of Materials, U. K., **b)** International Congresses on Chemistry of Cements (10<sup>th</sup> – 13<sup>th</sup> ICC, Gothenburg 1997, Montreal 2007, Madrid 2011), **c)** 44<sup>th</sup> IUPAC Congress (Istanbul 2013), **d)** Solid State Chemistry Conferences (Prague, Pardubice, Bratislava, 2002 – 2012)
21. M. Drábik, R. C. T. Slade, Macrodefect-free materials; Modification of Interfaces in Cement Composites by Polymer Grafting, *Interface Science (special issue on Interfaces in Cementitious Materials)*, Vol. 12, 2004, p.375-379.
22. M. Drábik, L. Gáliková, R. C. T. Slade: Chemistry for the design and better understanding of cement-based materials and composites, *Chemical papers - Chemické zvesti.*, Vol. 60, No. 2 (2006), s. 91-97
23. M. Drábik, L. Gáliková, Sv. Balkovic, R. C.T. Slade: Potential of Portland cements for MDF materials, *Journal of Physics and Chemistry Solids.*, Vol. 68, No. 5-6, Sp. Iss. (2007), s. 1057-1061
24. M. Drábik, L. Gáliková, Sv. Balkovic, R. C.T. Slade: Macro-defect free materials with controlled moisture resistance. In: *Nanotechnology of concrete: Recent developments and future perspectives* (Eds: K. Sobolev, S. P. Shah). American Concrete Institute, Michigan 2008. p. 145-155. ISBN 978-0-97031-299-1.)
25. M. Drábik, "Contribution of materials chemistry to the knowledge of macro-defect-free (MDF) materials", *Pure & Appl. Chem.*, Vol. 81, No. 8 (2009), 1413 – 1422.
26. M. Drábik, Sv. Balkovic, M. Peteja, Durability of autoclaved aerated concrete produced from fluidized fly ash, *Cement-Wapno-Beton*, 29-33, (2011, Special Issue)
27. M. Drábik, P. Billik, L. Galikova: Macro defect free materials; the challenge of mechanochemical activation, *Ceramics-Silikaty*, 56, 396-401 (2012).
28. M. Drábik, P. Billik, G. Maier: Macro defect free materials; review on the recent developments. In: *Recent Developments in Coordination, Bioinorganic and Applied Chemistry, Vol. 11* (Ed.: M. Melnik, P. Segla & M. Tatarko), Slovak Technical University Press, Bratislava 2013, pgs. 20-31.
29. M. Drábik, L. Galikova, P. Billik, G. Maier, B. Kosednar-Legenstein: Macro defect free materials; mechanochemical activation of raw mixes as the intensifying tool of the entire MDF synthesis, *Ceramics-Silikaty*, 57, 120-125 (2013).