

Curriculum Vitae

Hanna Dąbkowska

Hanna A. Dąbkowska received her MSc degree in Chemistry from the University of Warsaw and her PhD degree in Physics from the Institute of Physics Polish Academy of Science. Until 1990 she worked as an assistant professor at the Institute of Physics, Polish Academy of Sciences, mostly involved in research on the crystallization of oxides from high temperature solutions. During this time (1979, 1980, 1985) she worked in the Crystal Growth facilities in Clarendon Laboratory, University of Oxford, U.K. Hanna was also a visiting scientist at the Crystal Growth, Laboratory in Moscow State University, Russia (1976).

In 1990 she joined McMaster University as a Research Scientist. Her interests include crystal growth and characterization of oxide materials by different methods (mostly Optical Floating Zone Method and Growth from High Temperature Solutions, but also Top Seeding, Czochralski Method, Directional Solidification, Bridgman Method and crystallization from water).

She is the author and co-author of more than 140 research papers and 6 chapters in books about crystal growth and serves as a referee in more than 10 peer reviewed journals.

She was involved in organization and program committees of many conferences and schools for crystal growth.

Elected Positions:

- August 2011 she was elected to serve as a Member of the Executive Committee of International Union of Crystallography (<http://www.iucr.org>)
- Since 2013 she was confirmed as a Chair of Calendar Committee, Executive Committee, IUCr (<http://www.iucr.org>)
- Since 2005 she serves as the IUCr representative to COSPAR.
- Since 2013 she is the Secretary of the Executive Committee of International Organization for Crystal Growth (<http://iocg.org>).
- Since 2007 - she is a Member of the Executive Committee of International Organization for Crystal Growth (<http://iocg.org>).
- In 2005-2011 period she served as a Chair of the Commission of Crystal Growth and Characterization of Materials in the International Union of Crystallography (<http://www.iucr.org>).
- In 2000-2007 she served as Member of Executive Committee of Canadian Co-Data Organization
- She is a Member of the Editorial Advisory Board for Crystal Growth Research to the Transworld Research Network (<http://www.trnres.com>)

Chapters in books:

Dąbkowska HA, Dąbkowski AB, Hermann R, Priede J, Gerbet G. Floating Zone Growth of Oxides and Metallic Alloys. In: Nishinaga T, Rudolph P, editors. Handbook of Crystal Growth, Vol. II. Elsevier; 2015. pp. 281–329.

Hanna A. Dąbkowska and Antoni B. Dąbkowski "Crystal Growth of Oxides by Optical Floating Zone Technique. Experimental Approach to Defects Determination" in "Springer Handbook of Crystal Growth, Defects and Characterization" by Springer-Verlag' Berlin Heidelberg New York Tokyo, 2010

Hanna A. Dąbkowska and Bruce D. Gaulin "Growth of Oxides Single Crystals by the Optical Floating Zone Method" in "Crystal growth of technologically important electronic materials" Editors: K.Byrappa, T. Ohachi, H.Klapper and R. Fornari, Allied Publishers pvt. Ltd, 2003 p. 341 - 354

Hanna A. Dąbkowska, A. Dąbkowski and J.E. Greedan "Growth and Properties of Single Crystals of Relaxor Materials Obtained by Modified Bridgman Method" in "Crystal growth of technologically important electronic materials" Editors: K.Byrappa, T. Ohachi, H.Klapper and R. Fornari Allied Publishers pvt. Ltd, 2003 p. 355 - 363

Hanna A. Dąbkowska "Growth from high-temperature solutions" in "Elementary Crystal Growth" ed. By K.Sangwa, SAAN Publishers, Lublin, 1994, p. 303-320

Course handbook:

Hanna A. Dąbkowska "Wzrost kryształów z topników" in "Wzrost Kryształów" ed. by K.Sangwał, Wydawnictwo Wyższej

Szkoly Pedagogicznej w Czestochowie, 1990 p. 296- 319

Patent:

Patent PRL nr 117767 pt. "Urządzenie do trawienia tygli platynowych używanych w procesach wzrostu kryształów"
(Apparatus for cleaning platinum crucibles used in crystal growth processes)
Authors: J.Skwarz and H. A. Dabkowska-Lipko

Other professional activities:

Updating of Crystmet Database, teaching at crystal growth schools.

Awards:

Award of the Secretary of the Polish Academy of Sciences, awarded twice (1977 and 1979)
British Council Scholarship, awarded three times (1977, 1979, and 1985)

Invited Talks: 25

Materials produced in a single crystal form: (RE denotes rare earths)

Borates: $\text{SrCu}_2(\text{BO}_3)_2$

Aluminates: REAlO_3 , $\text{RE}_3\text{Al}_5\text{O}_{12}$; MgAl_2O_4 :Co, Cr

Chromates : $\text{Sr}_3\text{Cr}_2\text{O}_8$; $\text{Ba}_3\text{Cr}_2\text{O}_8$, MgCr_2O_4

Ferrites: REFeO_3 , $\text{BaFe}_{12}\text{O}_{19}$, $\text{REFe}_5\text{O}_{12}$, Fe_2O_3 , MgFe_2O_4

Galates: REGaO_3 , YbCoGaO_4 , LuCoGaO_4 : $\text{RE}_3\text{Ga}_5\text{O}_{12}$

Germanates: CuGeO_3

Vanadates: REVO_4 ; REVO_3 , $\text{RE}_2\text{V}_2\text{O}_7$, $\text{Co}_3\text{V}_2\text{O}_8$ - $\text{Mg}_3\text{V}_2\text{O}_8$

Nickelates: La_2NiO_4 , NaNiO_2 , LiNiO_2

Niobates: NiNb_2O_6 , CoNb_2O_6 , Tb_3NbO_7

Ruthenates: Sr_2RuO_4 $\text{Ho}_2\text{Ru}_2\text{O}_7$

Rhodates: Sr_2RhO_4

Manganates: $\text{Sr}_{0.2}\text{La}_{0.8}\text{MnO}_3$, $\text{Ca}_{0.2}\text{La}_{0.8}\text{MnO}_3$

Silicates: $\text{BaCuSi}_2\text{O}_6$; Mg_2SiO_4 :Cr

Titanates: CoTiO_3 , $\text{RE}_2\text{Ti}_2\text{O}_7$, Nd_xTiO_3 , $\text{MgTi}_4^{+3}\text{Ti}^{+4}\text{O}_9$ SrTiO_3 , $\text{Bi}_{12}\text{TiO}_{20}$

SrRE_2O_4 $\text{RE}_2\text{Zr}_2\text{O}_7$

Relaxor type piezoelectric (PZN-PT)· $\text{Pb}(\text{Zn},\text{Nb})\text{O}_3$ / PbTiO_3 ;

Tungstates: $\text{Al}_2(\text{WO}_4)_3$, $(\text{Al},\text{Sc})_2(\text{WO}_4)_3$, $(\text{Al},\text{Lu})_2(\text{WO}_4)_3$;