

**Curriculum Vitae**  
Professor Elena Pereloma

**Qualifications**

Candidate of Sciences in Physics and Mathematics (PhD), 1987  
Institute of Metal Physics, National Academy of Sciences, Ukraine  
Bachelor of Metallurgical Engineering (HI), 1981, Kiev Polytechnical Institute, Ukraine

**Current position**

Professor of Physical Metallurgy  
Director of UOW Electron Microscopy Centre  
The University of Wollongong, Australia  
Since 15/01/2012

**Positions held in the past 20 years**

*Visiting Assistant Professor*

Department of Materials and Metallurgical Engineering, Queen's University, Kingston, Canada  
08/1993-08/1995

*Lecturer*

Department of Materials Engineering, Monash University, Australia  
08/1995-12/1998

*Senior Lecturer*

School of Physics and Materials Engineering, Monash University, Australia  
01/1999-12/2004

*Associate Professor*

Department of Materials Engineering, Monash University, Australia  
01/2005-14/01/2007

*Director of BlueScope Steel Metallurgy Centre*

The University of Wollongong, Wollongong, Australia  
15/01/2007-15/01/2013

**Total number of publications:** >210, > 2200 citations, *h-index*=25

**Ten career-best publications**

1. E.V. Pereloma, F. AlHarbi, A.A. Gazder, *The Crystallography of Carbide-Free Bainites in Thermo-mechanically Processed Low Si Transformation-Induced Plasticity Steels*, J. Alloys and Compounds, 615, (2014), 96-100.
2. A.A. Saleh, A.A. Gazder, and E.V. Pereloma, *Texture Evolution of Cold Rolled and Annealed Fe-24Mn-3Al-2Si-1Ni-0.06C TWIP Steel*, Materials Science and Engineering A, 65(6) (2011), 560-563., 19 cit., top 10%.
3. D. Hejazi, A.J. Haq, N. Yazdipour, D.P. Dunne, A. Calka, F. Barbaro and E.V. Pereloma, *Effect of Manganese Content on the Susceptibility of X70 Pipeline Steel to Hydrogen Cracking*, Materials Science and Engineering A, 551 (2012), 40-49, 10 cit., top 10% world percentile.
4. E.V. Pereloma, I.B. Timokhina, M.K. Miller, P.D. Hodgson, *Three-Dimensional Atom Probe Analysis of Solute Distribution in Thermomechanically Processed TRIP Steels*, Acta Materialia, 55 (2007), 2587-2598, 48cit, top 10% world percentile.
5. S. Li, A.A. Gazder, I.J. Beyerlein, E.V. Pereloma, C.H.J. Davies, *Effect of Processing Route on the Microstructure and Texture Development in Equal Channel Angular Extrusion of Interstitial Free Steel*, Acta Materialia, 54 (2006), 1087-1100, 59 cit., top 10% world percentile.
6. E.V. Pereloma, I.B. Timokhina, J.J. Jonas, M.K. Miller, *Fine Scale Microstructural Investigations of Warm Rolled Low Carbon Steels with and Without Cr, P and B Additions*, Acta Materialia, 54 (2006) 4539-4551, 27cit.
7. E.V. Pereloma, A. Shekhter, M.K. Miller and S.P. Ringer, *Ageing Behaviour of Fe-20Ni-1.8Mn-1.6Ti-0.59Al(wt%) Maraging Steel*: Acta Materialia, 52 (2004), 5589-5602, 43 cit., top 10% world percentile.

8. F. Dalla Torre, R. Lapovok, J. Sandlin, P.F. Thomson, C.H.J. Davies, E.V. Pereloma, *Microstructures and Properties of Copper Processed by Equal Channel Angular Extrusion for 1-16 Passes*, Acta Materialia, 52 (2004), 4819-4832, 285 cit., top 1% world percentile.
9. V. Bata and E. Pereloma, *An Alternative Physical Explanation of the Hall-Petch Relation*, Acta Materialia, 52 (2004), 657-665, 54cit., top 10% world percentile.
10. I.B. Timokhina, P.D. Hodgson, E.V. Pereloma, *Effect of Microstructure on the Stability of Retained Austenite in TRIP Steel*, Metallurgical and Materials Transactions, 35A, (2004), 2331-2341, 120cit, top 1%.

Areas of expertise include thermo-mechanical processing of steels, physical metallurgy and severe plastic deformation of metals. She is also an expert in application of advanced experimental techniques, such as atom probe tomography and electron microscopy to microstructure characterisation of steels and alloys.

### **Teaching**

Undergraduate courses taught in the last 10 years: Structure of Engineering Materials II, Mechanical Behaviour of Metals and Alloys, Surfaces, Steel and Its Processing, Phase Transformations, Engineering Alloys, Metallurgical Engineering, Microstructure Development during Metal Processing

### **Other evidence of impact**

Patent 1198129 USSR C22C38/14, *Maraging Steel*, V.G. Gavrilyuk, E.V. Emchenko-Rybko (Pereloma), V.M. Nadutov, S.P. Oshkaderov and R.V. Televich, Bul. 46, 15.12.85.

Laureate of Ukrainian Youth Prize in Science & Technology, 1986.

Florence M. Taylor Medal, 2002, Institute of Materials Engineering Australasia

Joint winner in Imago Scientific Instruments Calendar Contest, 2005.

Dean's Teaching Award, 2006

Award co-reipient for the best paper published in Steel Research International, 2009.

Sawamura Award 2010, co-reipient, Iron and Steel Institute of Japan International.

Honorary Doctor of Sciences and V.G. Kurdjumov Medal, 2012, Institute for Metal Physics, Ukraine.

Prof. Pereloma has been a Chief Investigator on many ARC Discovery, ARC Linkage and ARC LIEF projects. She is also a CI in the DMTC CRC.

Prof. Pereloma has successfully completed supervision of 12 PhD and Masters by Research students. She currently supervises/co-supervises 5 PhD students.

In recognition of her standing Prof. Pereloma was invited by Woodhead Publishing, UK to edit the book "Phase Transformations in Steels", which was published in 2012.

Professor Pereloma has been an invited and keynote speaker, member of the organising committee, member of the International Advisory Committee, and session chair at a number of national and international conferences. She has been a reviewer for international journals and editor of two conference proceedings. She is an international reader for several granting bodies including Australian Research Council, Georgian National Science Foundation, Israel Science Foundation, American Chemical Society Petroleum Research Fund, NSERC, Canada, FONDYCET, Chile, FWO, Belgium and NSF, Qatar.

Prof. Pereloma was a member of the Victorian Branch Council of Institute of Materials Engineering Australasia and responsible for the Technical program (1999-2000), a President of the Victorian Branch IMEA (2000-2002) and a member of the National Council. Currently Prof. Pereloma is on the Editorial Board for the Journal of Metallurgy, Journal of Metal Physics and Advanced Technologies and Journal La Metallurgia Italiana, and on the Advisory Board for the Journal of Iron and Steel Institute of Japan International.

Prof. Pereloma was a member of the ARC Engineering and Environmental Sciences Research Evaluation Committee for ERA 2010.