CURRICULUM VITAE

Leon Gradoń, Professor of Chemical Engineering
Born : April 11, 1947

Education:

Warsaw University of Technology M.Sc., 1969, Chem.Eng.

University of Warsaw, M.Sc., 1975, Mathematics

Warsaw University of Technology, Ph.D., 1976, Chem.Eng.

University of Houston, Post Doc. 1978/79, Chem. Eng. , USA

Warsaw University of Technology, D.Sc., 1981, Technology

Experience:

1969-75	Lecturer, Chem.Eng., Warsaw University of Technology
1975-76	Seminars in the Banach Center
1976-81	Ass. Prof., Chem.Eng., Warsaw University of Technology
1982-90	Assoc. Prof., Chem.Eng., Warsaw University of Technology
1984-85	Visiting Prof., Mechanical and Aerospace Eng., SUNY, Buffalo, USA
1987	Visiting Prof., Mechanical and Aerospace Eng., SUNY, Buffalo, USA
1992	Lecturer, Lund University, Sweden
1990 - present	Professor, Chem.Eng., Warsaw University of Technology
1993/94	Fulbright Professor, University of Cincinnati, USA
1996	Lecturer, Delft University, The Netherlands
1997, 1999	Visiting Professor, University of Salzburg, Austria
1999 – 2005	Dean of the Faculty of Chemical Engineering, Warsaw University of Technology
2001	Visiting Professor, University of Hiroshima
2008–2011	Member of the Advisory Scientific Board at the Ministry of Science and High Education

Honors and Awards:

1985 - present	Scientific Board, Inst.of Chem.Eng., Polish Academy of Science

1987 - present	International Society Aerosols in Medicine, 1991-1993 Board Member
1988 - present	Committee of Chem.Eng. Polish Academy of Science
1988 - present	Member of Gesselshaft fur Aerosolforschung
1990 -2003	Editorial Board *Journal of Aerosol Science*
1991 - present	Editorial Board *Chemical and Process Engineering Journal*
1991 - 1993	Scientific Board, Institute of Biocybernetics and Biomedical Engineering, Warsaw, Poland
1992 - present	Scientific Board, Central Institute of Labor Protection, Poland
1993 - present	Editorial Board *International Journal Occupational Safety and Ergonomics*
1995 - present	Advisory Board for the Ministry of Environmental Protection (Polish Gov.)
2003 – present	Editorial Board, *Journal Aerosol in Medicine*
2004 - present	Board of Gesselschaft fur Aerosolforschung
2005 – present	Advisory Board, *Advanced Powder Technology* (Japan Powder Society)
2009 – present	Member of American Filtration Society
1977	Ministry of Science Award (Poland) for research achievements on dispersive system analysis
1983	Ministry of Science Award (Poland) for research achievements on aerosol filtration
1984	Polish Academy of Science Award for research achievements on theory of filtration
1988	Golden Esculap Award, Int. Medical Fairs, construction of nebulizer
1989	Smoluchowski Award (international)
1990	Ministry of Science Award (Poland) for achievements theory of lung mechanics, aerosol deposition and clearance
1993	Fulbright Award (international)
1996	Ministry of Labor Award (first degree) (Poland) for achievements in reduction of air pollution at the workplace
1998	Gold Medal, International Innovation Exhibition EUREKA 98', Brussels, Belgium
2001	Japan Society for Promotion of Sciences – award (scholarship)

2002	Master of Technology, Warsaw-2002, for designing and construction of the technology of filters production
2006	Foundation for Polish Science Award for achievement in nanoparticle technology
2006	Cummins Filtration Professor of Separation Technologies
2007	Prime Minister of Polish Government Award (first degree) for achievement in innovation Technology

Scientific interests:

- Mathematical modeling, stability analysis of physicochemical systems far from equilibrium, deterministic chaos, fractal structures.
- Aerosol mechanics, spherical and fibrous particles, behavior in flow field, deformation, rotation, deposition.
- Nonsteady-state filtration theory, filling fibrous filter space with deposits. Influence of local structures of deposits on filtration efficiency and pressure drop.
- Lung mechanics, air flow during breathing, pathological cases (asthma, emphysema), aerosol deposition and retention in the lung, role of macrophages.
- Lung surfactant mechanics, role of clearance, Marangoni's instability interaction with deposits.
- Gas transport in the alveolar region of human lung, and blood capillary.
- Optimization of drug delivery in an inhalation.
- Aerosol generation and thermal stability.
- Formation of electret fibrous filters in electrospray-melt blown technique.

Publications:

- Author and co-author of 15 monographs and chapters, 4 academic books
- Author and co-author of over 160 per-reviewed papers in scientific international journals
- Author and co-author of over 200 presentations on International Conferences
- Author and co-author of 64 patents

Application of inventions at technical scale (production):

- Ultrasonic nebulizer THOMEX,
- Pneumatic nebulizer SECURA NOVA,

- Bag filters,
- Disposable respirators,
- Tubular filters for water cleaning MICROSPUN PRODUCTS, AMAZON FILTERS,
- Diesel filters (Cummins Filtration, USA),
- Dry powder inhaler (GlaxoWellcome, Poland)