

# Curriculum vitae of Prof. Sergiy Antonyuk

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Institute of Particle Process Engineering  
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## Personal Data

Birth date / place      November 22, 1977/ Donetsk (Ukraine)

## Professional Record

Since 08/2014	<b>Professor, Head of the Institute</b> of Particle Process Engineering at the University of Kaiserslautern, Germany
04/2013 - 08/2014	<b>Junior-Professor</b> , Hamburg University of Technology, Institute of Solids Process Engineering and Particle Technology
04/2008 - 04/2013	<b>Scientific assistant professor</b> , Institute of Solids Process Engineering and Particle Technology, Hamburg University of Technology, Germany
07/2006 - 04/2008	<b>Postdoctoral fellow</b> at the Otto von Guericke University of Magdeburg, Germany

## Academic Background

2006	<b>Ph.D. in process engineering.</b> Otto von Guericke University of Magdeburg (Germany), Faculty of process and system engineering Thesis: Deformation and breakage behaviour of spherical granules during compression and impact stressing. Supervisor: Prof. J. Tomas <i>Diploma with an excellent mark</i>
2004	<b>Ph.D. in ecological safety (technical sci.).</b> National Technical University "Kyiv Polytechnic Institute" (Ukraine), Faculty of chemical engineering Thesis: Compounding of solid carbonaceous wastes for thermal processing in chamber ovens. Supervisor: Prof. O. Parfenyuk
1999	<b>M.Sc. in process equipment.</b> National Technical University of Donetsk (NTU Donetsk, Ukraine), Faculty of Ecology and Chemical Technology Thesis: Mechanical processing of solid wastes <i>Diploma with an excellent mark</i>
1998	<b>B.Sc. in mechanical engineering.</b> NTU Donetsk <i>Diploma with an excellent mark</i>

## Functions

since 2018	German delegate to the working party on Mechanics of Particulate Solids of the European Federation of Chemical Engineering (EFCE)
since 2018	German delegate to the working party on Agglomeration of EFCE
Elected member of different expert groups of ProcessNet (GVT-VDI and DECHEMA):	
since 2017	Expert group „Mechanical Fluid Separation“
since 2017	Temporally expert group “Aerosol Technology”
since 2014	Expert group „Agglomeration and Powder Technology“
2015 - 2017	Speaker of DFG Priority Programme SPP 1486 "Particle in Contact – Micro Mechanics, Micro Process Dynamics and Particle Collective" (third funding period)

## Awards and Honours

2016	Honorary doctorate of National Technical University Ukraine (Pokrowsk)
2013	Friedrich-Löffler prize in Particle Technology (VDI-GVC)
2008	Johannes Möller prize in Particle Technology
2007	Best doctoral thesis, Prize of faculty of process and system engineering, Otto-von-Guericke-University of Magdeburg
2001	Presidential Prize (Ukraine) for the excellent results during Ph.D.

## Selected Publications

1. M. Pitz, A. Hellmann, S. Ripperger, S. Antonyuk: Development of a 3D Light Scattering Sensor for online characterization of aerosol particles. *Particle & Particle System Characterization* 35 (2018) 6, 1800045, <http://dx.doi.org/10.1002/ppsc.201800045>.
2. Schwarz, N., Ripperger, S., Antonyuk, S.: Investigations on the capability of the Statistical Extinction method for the determination of mean particle sizes in concentrated particle systems, *Particle & Particle System Characterization* (2018), 1800191, <https://doi.org/10.1002/ppsc.201800191>.
3. D. Weis, M. Niesing, M. Thommes, S. Antonyuk: DEM simulations of the mixing behavior in a spheronization process, *Chemical Engineering Science* 192 (2018), 803-815 <https://doi.org/10.1016/j.ces.2018.07.057>.
4. K. Schmidt, S. Buhl, N. Davoudi, C. Godard, R. Merz, I. Raid, E. Kerscher, M. Kopnarski, C. Müller-Renno, S. Ripperger, J. Seewig, C. Ziegler, and S. Antonyuk: Ti Surface modification by cold spraying with TiO<sub>2</sub> microparticles, *Surface and Coatings Technology* 309 (2017) 749-758, <http://dx.doi.org/10.1016/j.surfcoat.2016.10.091>.
5. S. Aman, P. Mueller, J. Tomas, S. Kozhar, M. Dosta, S. Heinrich, and S. Antonyuk: Combined viscoelastic and elastic wave dissipation mechanism at low velocity impact, *Advanced Powder Technology* 27, 4 (2016) 1244-1250, <http://dx.doi.org/10.1016/j.appt.2016.04.012>.
6. M. F. H. Wolff, V. Salikov, S. Antonyuk, S. Heinrich, and G. A. Schneider: Novel, ultra-dense ceramic-polymer composites synthesized by a spouted bed spray granulation process, *Composites Science and Technology* 90 (2014) 154-159, <http://dx.doi.org/10.1016/j.compscitech.2013.11.006>.
7. J. Neuwirth, S. Antonyuk, S. Heinrich, and M. Jacob: CFD-DEM study and direct measurement of the granular flow in a rotor granulator, *Chemical Engineering Science* 86 (2013) 151-163, <https://doi.org/10.1016/j.ces.2012.07.005>.
8. S. Antonyuk, S. Palis, S. Heinrich: Breakage behaviour of agglomerates and crystals by static loading and impact, *Powder Technology* 206 (2011) 88-98, <https://doi.org/10.1016/j.powtec.2010.02.025>.
9. S. Antonyuk, S. Heinrich, J. Tomas, N. G. Deen, M. S. van Buijtenen, J. A. M. Kuipers: Energy absorption during compression and impact of dry elastic-plastic spherical granules, *Granular Matter* 12 (2010) 15-47 <https://doi.org/10.1007/s10035-009-0161-3>
10. S. Antonyuk, S. Heinrich, N. G. Deen, and J. A. M. Kuipers: Influence of liquid layers on energy absorption during particle impact, *Particuology* 7 (2009) 245-259, <https://doi.org/10.1016/j.partic.2009.04.006>.