



**Professor Anatoly V Zayats, FInstP, FOSA, FSPIE, FRSC**  
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 King's College London  
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**Research Interests:** near-field optics; scanning probe microscopy; nanophotonics and plasmonics; metamaterials; nonlinear optics and spectroscopy; surface plasmons and polaritons; bio- and chemical sensing; nanostructured metals; optical properties of surfaces, thin films, semiconductors and low-dimensional structures

Fellow of the Institute of Physics (2006)

Fellow of the Optical Society of America (2008): for pioneering contributions in nano-optics and plasmonics

Fellow of SPIE (2012): for achievements in integrated plasmonics and nonlinear metamaterials

Fellow of the Royal Society of Chemistry (2014)

[Know plasmonics in 10 minutes \(SPIE TV, 2012\)](#)

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**News**

**List of Publications**



**Nano-optics Lab**  
**EBN Group**  
**Physics @ King's**  
**KCL**

- **1986** MSc with Distinction, Dept. of General and Applied Physics, [Moscow Institute of Physics and Technology](#), USSR
- **1989** PhD in Physics (Solid State Physics), [Moscow Institute of Physics and Technology](#), USSR (see also [\[non-canonical MIPT web-pages\]](#))
- **1989-1997** Junior Research Scientist, Research Scientist (1990), Senior Research Scientist (1992), [Institute of Spectroscopy](#), Russian Academy of Sciences, Moscow, Russia
- **1992-1994** Research Fellow, Institute of Physics, [University of Aalborg](#), Denmark.
- **1995-1997** Visiting Professor, [University of Algarve](#), Portugal
- **1998-1999** Alexander von Humboldt Fellow, [University of Konstanz](#), Germany
- **1999-2005** Lecturer in Condensed Matter Physics, School of Mathematics and Physics, [The Queen's University of Belfast](#), United Kingdom
- **1999-2007** Visiting Professor, Laboratoire de Physique, [l'Université de Bourgogne](#), Dijon, France
- **2005-2010** Chair in Physics, School of Mathematics and Physics, [The Queen's University of Belfast](#), United Kingdom
- **2008-2011** Visiting Professor, Department of Physics, [Sogang University](#), Seoul, South Korea
- **2010-present** Chair in Experimental Physics, Department of Physics, [King's College London](#), United Kingdom

**Main review articles and books:**

1. A. V. Zayats, I. I. Smolyaninov, "Near-field photonics: surface plasmon polaritons and localised surface plasmons," J. Opt. A: Pure and Applied Optics, vol. 5, 2003, pp. S16-S50. [\[on-line\]](#)

2. A. V. Zayats, I. I. Smolyaninov, A. A. Maradudin, "Nano-optics of surface plasmon polaritons," Phys. Rep., vol. 408, 2005, pp. 131-314. [\[on-line\]](#)
3. G. A. Wurtz, A. V. Zayats, "Nonlinear surface plasmon polaritonic crystals," Laser and Photon. Rev., vol. 2, 2008, pp. 125-135. [\[on-line\]](#)
4. D. Richards, A. V. Zayats, Eds., *Nano-optics and Near-field Optical Microscopy* (Artech, Boston, 2008). [\[look inside\]](#)
5. A. V. Zayats, I. I. Smolyaninov, A. A. Maradudin, *Nano-optics of Surface Plasmon Polaritons* (Academic Press, New York, 2009). [\[more\]](#)
6. M. Kauranen, A. V. Zayats, "Nonlinear plasmonics," Nature Photonics, vol. 6, 2012, pp. 737-748. [\[on-line\]](#)
7. A. V. Zayats, S. A. Maier, Eds., *Active Plasmonics and Tuneable Plasmonic Metamaterials* (Wiley-Blackwell & Science-Wise, 2013). [\[look inside\]](#)

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