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Gold nanorod photoluminescence : applications to imaging and temperature sensing

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CURRICULUM VITÆ

Aquiles Carattino was born on May 7th, 1986 in Buenos Aires, Argentina. From March 2004 until December 2010 he studied physics at the University of Buenos Aires. His undergraduate research project was carried on under supervision of Prof. Pedro Aramendía and focused on the emission anisotropy of Nile red molecules embedded in polymer thin films. After his studies, he started working as Research Assistant at Tenaris, world leader in the production of seamless steel tubes in Campana, Argentina. In October 2012 he joined the group of Prof. Michel Orrit at Leiden University to start his PhD project on the luminescence of single gold nanorods.

LIST OF PUBLICATIONS

5. Araoz, B., **Carattino, A.**, Tauber, D., Von Borczyskowski, C. & Aramendia, P. E., *Influence of the glass transition on rotational dynamics of dyes in thin polymer films: Single-molecule and ensemble experiments*. J. Phys. Chem. A 118, 10309-10317 (2014).
4. **Carattino, A.**, Khatua, S. & Orrit, M., *In situ tuning of gold nanorod plasmon through oxidative cyanide etching*. Phys. Chem. Chem. Phys. 18, 15619-15624 (2016).
3. **Carattino, A.**, Keizer, V. I. P., Schaaf, M. J. M. & Orrit, M., *Background Suppression in Imaging Gold Nanorods through Detection of Anti-Stokes Emission*. Biophys. J. 111, 2492-2499 (2016).
2. **Carattino, A.** & Orrit, M., *Gold nanorods as nano-thermometers: Anti-Stokes Luminescence* (Manuscript in preparation)
1. **Carattino, A.** & Orrit, M., *Plasmon damping of gold nanorods at variable temperatures* (Manuscript in preparation)

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