



# GEMaC

Groupe d'Étude  
de la Matière Condensée

## OEN – PUBLICATIONS 2010-2014

### 2014

D. Canneson, L. Biadala, S. Buil, X. Quélin, C. Javaux, B. Dubertret, J.-P. Hermier,  
**"Blinking suppression and biexcitonic emission in thick-shell CdSe/CdS nanocrystals at cryogenic temperature"**,  
Phys. Rev. B **89**, 035303 (2014) – [HAL]

S. Derom, A. Bouhelier, A. Kumar, A. Leray, J.-C. Weeber, S. Buil, X. Quélin, J.-P. Hermier, G. Colas des Francs,  
**"Single molecule controlled emission in planar plasmonic cavity"**,  
Phys. Rev. B **89**, 035401 (2014) – [HAL]

### 2013

D. Canneson, S. Buil, X. Quélin, C. Javaux, B. Dubertret, J.-P. Hermier,  
**"Influence of the cluster's size of random gold nanostructures on the fluorescence**

**of single CdSe/CdS nanocrystals",**

Gold Bulletin **46**, 329 (2013) – [HAL]

F. Liu, L. Biadala, A. V. Rodina, D. R. Yakovlev, D. Dunker, C. Javaux, J.-P. Hermier, A. L. Efros, B. Dubertret, M. Bayer,

**"Spin dynamics of negatively charged excitons in CdSe/CdS colloidal nanocrystals",**

Phys. Rev. B **88**, 035302 (2013)

J. Laverdant, J.-P. Hermier, X. Quélin, S. Buil,

**"From scattering regime to strong localization: a statistical analysis of the near-field intensity on random gold films",**

J. Nanophotonics **7**, 073589 (2013) – [HAL]

E. Chikoidze, T. Tchelidze, E. Popova, P. Maso, N. Ponjavidze, N. Keller and Y. Dumont,

**"Conductivity type inversion in wide bandgap antiferromagnetic FeTiO<sub>3</sub>",**

Appl. Phys. Lett. **102**, 122112 (2013)

C. Javaux, B. Mahler, B. Dubertret, A. Shabaev, A. V. Rodina, Al. L. Efros, D. R. Yakovlev, F. Liu, M. Bayer, G. Camps, L. Biadala, S. Buil, X. Quélin and J.-P. Hermier,

**"Thermal activation of non-radiative Auger recombination in charged colloidal nanocrystals",**

Nature Nanotechnology **8**, 206 (2013)

F. Pisanello, G. Leménager, L. Martiradonna, L. Carbone, S. Vezzoli, P. Desfonds, P. D. Cozzoli, J.-P. Hermier, E. Giacobino, R. Cingolani, M. de Vittorio, A. Bramati,

**"Non-blinking single-photon generation with anisotropic colloidal nanocrystals: towards room-temperature, efficient, colloidal quantum sources",**

Adv. Mater. **25**, 1974 (2013)

## 2012

S. Buil, J. Laverdant, B. Berini, P. Maso, J.-P. Hermier, X. Quélin,

**"FDTD simulations of localization and enhancements on fractal plasmonics nanostructures",**

Optics Express **20**, 11968 (2012) – [HAL]

D. Canneson, I. Mallek-Zouari, S. Buil, X. Quélin, C. Javaux, B. Dubertret, J.-P. Hermier,  
**"Enhancing the fluorescence of individual thick shell CdSe/CdS nanocrystals by coupling to gold structures"**,  
New J. Phys. **14**, 063035 (2012) – [HAL]

## 2011

D. Canneson, I. Mallek-Zouari, S. Buil, X. Quélin, C. Javaux, B. Mahler, B. Dubertret, J.-P. Hermier,  
**"Strong Purcell effect in single thick shell CdSe/CdS nanocrystals coupled to localized surface plasmons"**,  
Phys. Rev. B **84**, 245423 (2011) – [arXiv]

## 2010

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**"Near-field intensity correlations on nanoscaled random silver/dielectric films"**,  
J. Nanophotonics **4**, 049505 (2010)

C. Vion, P. Spinicelli, L. Coolen, C. Schwob, J.-M. Frigerio, J.-P. Hermier, A. E. Maître,  
**"Controlled modification of single colloidal CdSe/ZnS nanocrystal fluorescence through interactions with a gold surface"**,  
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F. Pisanello, L. Martiradonna, P. Spinicelli, A. Fiore, J.-P. Hermier, L. Manna, R. Cingolani, E. Giacobino, M. De Vittorio, A. Bramati,  
**"Dots in rods as polarized single photon sources"**,  
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I. Mallek-Zouari, S. Buil, X. Quélin, B. Mahler, B. Dubertret, J.-P. Hermier,  
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F. Pisanello, L. Martiradonna, G. Lemenager, P. Spinicelli, A. Fiore, L. Manna, J.-P. Hermier, R. Cingolani, E. Giacobino, M. De Vittorio, A. Bramati,  
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A. Qualtieri, G. Morello, P. Spinicelli, M. T. Todaro, T. Stomeo, L. Martiradonna, M. de Giorgi, X. Quélin, S. Buil, A. Bramati, J.-P. Hermier, R. Cingolani, M. De Vittorio,  
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- » Publications 2006-2009