

Significant research results (Pub. no. referred to List):

Legends: (I) – plasmonics (II) – surface optics (III) – Fundamental Physics

- Proposition of a new approach to probing the photon mass (2013: Pub. # 117) **(III)**
- Clarification of classical decomposition of decay rates for molecules near a metallic nanoparticle (2012: Pub. # 112, 113) **(II)**
- Clarification of gauge invariance and reciprocity symmetry in quantum mechanics (2010: Pub. # 102) **(III)**
- First study of FRET process at metallic nanoshell using nonlocal optics (2009: Pub. # 100) **(I)**
- Clarification of nonlinear surface plasmon dispersion relation (2009: Pub. # 95) **(I)**
- Prediction of large lateral shift in reflected light at metal surface and received almost immediate experimental verification (2007: Pub. # 82) **(II)**
- Clarification of controversial experimental observations on behaviors of fluorescing molecules at a NSOM probe (1995: Pub. # 52) **(II)**
- Confirmation of sensitivity enhancement employing particle linkage technique for the surface plasmon sensor via modeling (1994: Pub. # 47) **(II)**
- First study of molecular decay rates at a metallic nanoparticle using nonlocal optics (1990: Pub. # 35) **(II)**
- First derivation of a new correction term to the Bethe stopping power theory for particles traversing a target of heavy elements (later named by some researchers in the field as the “Leung Correction” – see, e.g. [Phys. Rev. A **46**, 5761 (1992), Nucl. Instr. and Meth.in Phys.Res.B **107**, 56 (1996), *ibid* **187**, 285 (2002)]. (1989: Pub. # 34) **(III)**