# Francisco J Rodriguez

List of Publications by Year
in descending order



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|---|---|---|---|
| 41 papers | 1,203 citations | 516710 16 h-index | 454955 30 g-index |
| 41 all docs | 41 docs citations | 41 times ranked | 1751 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Hybrid graphene plasmonic waveguide modulators. Nature Communications, 2015, 6, 8846. | 12.8 | 232 |
| 2 | Surface and bulk contributions to the second-order nonlinear optical response of a gold film. Physical Review B, 2009, 80, . | 3.2 | 226 |
| 3 | Hydrogen-Bonded Polymerâ˜Azobenzene Complexes: Enhanced Photoinduced Birefringence with High Temporal Stability through Interplay of Intermolecular Interactions. Chemistry of Materials, 2008, 20, 6358-6363. | 6.7 | 111 |
| 4 | Super-Narrow, Extremely High Quality Collective Plasmon Resonances at Telecom Wavelengths and Their Application in a Hybrid Graphene-Plasmonic Modulator. Nano Letters, 2015, 15, 3519-3523. | 9.1 | 73 |
| 5 | Enhanced photoinduced birefringence in polymer-dye complexes: Hydrogen bonding makes a difference. Applied Physics Letters, 2007, 90, 121103. | 3.3 | 68 |
| 6 | Photoinduced supramolecular chirality in side-chain liquid crystalline azopolymers. Journal of Materials Chemistry, 2006, 16, 1674-1680. | 6.7 | 59 |
| 7 | Giant photoeffect in proton transport through graphene membranes. Nature Nanotechnology, 2018, 13, 300-303. | 31.5 | 59 |
| 8 | Photoinduced optical anisotropy in azobenzene methacrylate block copolymers: Influence of molecular weight and irradiation conditions. European Polymer Journal, 2009, 45, 262-271. | 5.4 | 36 |
| 9 | Nonlinear Light Mixing by Graphene Plasmons. Nano Letters, 2018, 18, 282-287. | 9.1 | 32 |
| 10 | Methacrylic azopolymers for holographic storage: A comparison among different polymer types. European Polymer Journal, 2007, 43, 3292-3300. | 5.4 | 31 |
| 11 | Calibration of the second-order nonlinear optical susceptibility of surface and bulk of glass. Optics Express, 2008, 16, 8704. | 3.4 | 30 |
| 12 | Light coupling into the Whispering Gallery Modes of a fiber array thin film solar cell for fixed partial Sun tracking. Scientific Reports, 2014, 4, . | 3.3 | 29 |
| 13 | Multipolar tensor analysis of second-order nonlinear optical response of surface and bulk of glass. Optics Express, 2007, 15, 8695. | 3.4 | 27 |
| 14 | SUPPRESSION OF CHROMOPHORE AGGREGATION IN AMORPHOUS POLYMERIC MATERIALS: TOWARDS MORE EFFICIENT PHOTORESPONSIVE BEHAVIOR. Journal of Nonlinear Optical Physics and Materials, 2010, 19, 57-73. | 1.8 | 27 |
| 15 | Volume holographic storage and multiplexing in blends of PMMA and a block methacrylic azopolymer, using 488nm light pulses in the range of 100ms to 1s. European Polymer Journal, 2008, 44, 72-78. | 5.4 | 21 |
| 16 | Solidâ€State Electrolyteâ€Gated Graphene in Optical Modulators. Advanced Materials, 2017, 29, 1606372. | 21.0 | 19 |
| 17 | High and stable photoinduced anisotropy in guestâ€“host polymer mediated by chromophore aggregation. Optics Letters, 2010, 35, 1813. | 3.3 | 16 |
| 18 | Surface relief gratings induced by a nanosecond pulse in a liquid-crystalline azo-polymethacrylate. Applied Physics Letters, 2005, 87, 201914. | 3.3 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Red light induced holographic storage in an azobenzene polymethacrylate at room temperature. Optical Materials, 2006, 28, 480-487. | 3.6 | 15 |
| 20 | Enhancement of bulk-type multipolar second-harmonic generation arising from surface morphology of metals. New Journal of Physics, 2010, 12, 063009. | 2.9 | 13 |
| 21 | Controlling the diffused nonlinear light generated in random materials. Optics Letters, 2012, 37, 1676. | 3.3 | 13 |
| 22 | Influence of UV irradiation on the blue and red light photoinduced processes in azobenzene polyesters. Polymer, 2004, 45, 6003-6012. | 3.8 | 10 |
| 23 | Nanomechanical electro-optical modulator based on atomic heterostructures. Nature Communications, 2016, 7, 13590. | 12.8 | 10 |
| 24 | Observation of speckle pattern formation in transparent nonlinear random media. Optics Letters, 2011, 36, 1347. | 3.3 | 7 |
| 25 | Reversible change of birefringence sign by optical and thermal processes in an azobenzene polymethacrylate. Applied Physics Letters, 2005, 86, 021907. | 3.3 | 5 |
| 26 | Wave-front phase-modulation control and focusing of second-harmonic light generated in transparent nonlinear random structures. Physical Review A, 2013, 87, . | 2.5 | 5 |
| 27 | Spatial control of second-harmonic light from a disordered structure. , 2012, , . | | 4 |
| 28 | Non-linear Optical Properties of Liquid Crystalline Azobenzene Polymeric Films. Molecular Crystals and Liquid Crystals, 2004, 411, 467-475. | 0.9 | 3 |
| 29 | Plasmon-induced nanoscale quantised conductance filaments. Scientific Reports, 2017, 7, 2878. | 3.3 | 3 |
| 30 | Unusual photo-induced behaviour in a side chain liquid crystalline azo-polyester. European Polymer Journal, 2006, 42, 3294-3302. | 5.4 | 2 |
| 31 | Stability of all-optical poling in hydrogen-bonded guest-host polymers. , 2007, , . | | 1 |
| 32 | Nanoscale light field imaging with graphene. Communications Materials, 2022, 3, . | 6.9 | 1 |
| 33 | Calibration of multipolar second-order response of isotropic bulk materials. , 2007, , . | | 0 |
| 34 | Enhanced photoinduced birefringence in hydrogen-bonded polymer-dye complexes. , 2007, , . | | 0 |
| 35 | Second-order nonlinear optical susceptibilities of surface and bulk of glass. , 2007, , . | | 0 |
| 36 | Pulsed holographic gratings in azo-polymethacrylates with different molecular architectures. , 2007, 6488, 40. | | 0 |

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|---|---|---|---|
| 37 | Enhanced photoinduced birefringence in hydrogen-bonded guest-host polymers. , 2007, , . | | 0 |
| 38 | Enhanced quadrupolar second-harmonic generation from rough gold films. Proceedings of SPIE, 2010, , . | 0.8 | 0 |
| 39 | Multipolar contributions to the second-order nonlinearity of gold. , 2010, , . | | 0 |
| 40 | Surface and Bulk Contributions to the Second-Order Nonlinearity of Gold. , 2009, , . | | 0 |
| 41 | Second-order nonlinear optical response of gold. , 2009, , . | | 0 |