

Publications – Institute for Quantum Optics

- (1) Findler C, Lang J, Osterkamp C, Nesladek M & Jelezko F **(2020)**: Indirect overgrowth as a synthesis route for superior diamond nano sensors. Scientific Reports volume 10, Article number: 22404
- (2) Osterkamp C, Balasubramanian P, Wolff G, Teraji T, Nesladek M & Jelezko F **(2020)**: Benchmark for Synthesized Diamond Sensors Based on Isotopically Engineered Nitrogen-Vacancy Spin Ensembles for Magnetometry Applications. Advanced Quantum Technologies 2000074
- (3) Mindarava Y, Blinder R, Laube C, Knolle W, Abel B, Jentgens C, Isoay J, Scheuer J, Lang J, Schwartz I, Naydenov B & Jelezko F **(2020)**: Efficient conversion of nitrogen to nitrogen-vacancy centers in diamond particles with high-temperature electron irradiation. Carbon, Volume 170, 182-190
- (4) Genov G T, Ben-Shalom Y, Jelezko F, Retzker A & Bar-Gill N **(2020)**: Efficient and robust signal sensing by sequences of adiabatic chirped pulses. PhysRevResearch 2, 033216
- (5) Mindarava Y, Blinder R, Liu Y, Scheuer J, Lang J, Agafonov V, Davydov V A, Laube C, Knolle W, Abel B, Naydenov B & Jelezko F **(2020)**: Synthesis and coherent properties of ^{13}C -enriched sub-micron diamond particles with nitrogen vacancy color centers. Carbon, Volume 65, 395-403
- (6) Lang J, Häußler S, Fuhrmann J, Waltrich R, Laddha S, Scharpf J, Kubanek A, Naydenov B & Jelezko F **(2020)**: Long optical coherence times of shallow-implanted, negatively charged silicon vacancy centers in diamond. Applied Physics Letters 116, 064001
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- (9) Fehler K G, Ovvyan A P, Gruhler N, Pernice W H P & Kubanek A **(2019)** Efficient Coupling of an Ensemble of Nitrogen Vacancy (NV-) to the Mode of a High-Q, Si_3N_4 Photonic Crystal Cavity. ACS Nano 13, 6, 6891-6898
- (10) Metsch M H, Senkalla K, Tratzmiller B, Scheuer J, Kern M, Achard J, Tallaire A, Plenio M B, Siyushev P & Jelezko **(2019)** Initialization and Readout of Nuclear Spins via a Negatively Charged Silicon-Vacancy Center in Diamond. Phys. Rev. Lett. **122**, 190503
- (11) Häußler S, Benedikter J, Bray K, Regan B, Dietrich A, Twamley J, Aharonovich I, Hunger D & Kubanek A **(2019)** Diamond-Photonics Platform Based on Silicon-Vacancy Centers in a Single Crystal Diamond Membrane and a Fiber Cavity. Phys. Rev. B 99, 165310
- (12) Osterkamp C, Mangold M, Lang J, Balasubramanian P, Teraji T, Naydenov B & Jelezko F **(2019)** Engineering preferentially-aligned nitrogen-vacancy centre ensembles in CVD grown diamond. Scientific Reports, 9:5786
- (13) Siyushev P, Nesladek M, Bourgeois E, Gulka M, Hruby J, Yamamoto T, Trupke M, Teraji T, Isoya J & Jelezko F **(2019)** Photoelectrical imaging and coherent spin-state readout of single nitrogen-vacancy centers in diamond. Science Vol. 363, Issue 6428, pp. 728-731

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- (22) Häußler S., Thiering G., Dietrich A., Waasem N., Teraji T., Isoya J., Iwasaki T., Hatano M., Jelezko F., Gali A. & Kubanek A. **(2017)** Photoluminescence excitation spectroscopy of SiV⁻ and GeV⁻ color center in diamond. *New Journal of Physics*, Volume 19
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