

List of Publications 2014

- [1] B. Albertazzi, A. Ciardi, M. Nakatsutsumi, T. Vinci, J. Béard, R. Bonito, J. Billette, M. Borghesi, Z. Burkley, S. N. Chen, T. E. Cowan, T. Herrmannsdörfer, D. P. Higginson, F. Kroll, S. A. Pikuz, K. Naughton, L. Romagnani, C. Riconda, G. Revet, R. Riquier, H.-P. Schlenvoigt, I. Yu. Skobelev, A.Ya. Faenov, A. Soloviev, M. Huarte-Espinosa, A. Frank, O. Portugall, H. Pépin, and J. Fuchs, "Laboratory formation of a scaled protostellar jet by coaligned poloidal magnetic field," *Science* **346**, 325–328 (2014).
- [2] Jack A. Alexander-Webber, Clement Faugeras, Piotr Kossacki, Marek Potemski, Xu Wang, Hee Dae Kim, Samuel D. Stranks, Robert A. Taylor, and Robin J. Nicholas, "Hyperspectral Imaging of Exciton Photoluminescence in Individual Carbon Nanotubes Controlled by High Magnetic Fields," *Nano Letters* **14**, 5194–5200 (2014).
- [3] Rami Al-Oweini, Bassem S. Bassil, Jochen Friedl, Veronika Kottisch, Masooma Ibrahim, Marie Asano, Bineta Keita, Ghenadie Novitchi, Yanhua Lan, Annie Powell, Ulrich Stimming, and Ulrich Kortz, "Synthesis and Characterization of Multinuclear Manganese-Containing Tungstosilicates," *Inorganic Chemistry* **53**, 5663–5673 (2014).
- [4] K. Andersson, M. Hammerstad, A. B. Tomter, H. Hersleth, A. K. Rohr, G. Zoppellaro, N. H. Andersen, G. K. Sandvik, G. E. Nilsson, A. Anne-Laure Barra, M. Hogbom, and A. Graslund, "Studies of the tyrosyl radicals and metal clusters in R2 of class Ia and Ib ribonucleotide reductase," *Journal Of Biological Inorganic Chemistry* **19**, S266 (2014).
- [5] A. Audouard, L. Drigo, F. Duc, X. Fabreges, L. Bosseaux, and P. Toulemonde, "Tunnel diode oscillator measurements of the upper critical magnetic field of $\text{FeTe}_{0.5}\text{Se}_{0.5}$," *Journal of Physics-Condensed Matter* **26**, 185701 (2014).
- [6] Alain Audouard and Jean-Yves Fortin, "Recent developments in the determination of the amplitude and phase of quantum oscillations for the linear chain of coupled orbits," *Low Temperature Physics* **40**, 344–351 (2014).
- [7] A. Audouard, J.-Y. Fortin, V. N. Laukhin, D. Vignolles, T. G. Prokhorova, E. B. Yagubskii, and E. Canadell, "De Haas-van Alphen oscillations in the compensated organic metal α -'pseudo- κ '-(ET) $_4$ H $_3$ O[Fe(C $_2$ O $_4$) $_3$]\cdot(C $_6$ H $_4$ Br $_2$)," *European Physical Journal B* **87**, 200 (2014).
- [8] O.I. Aydin, M. Mouis, A. Cresti, B.A. Piot, T. Hallam, J.L. Thomassin, and G.S. Duesberg, "Low temperature characterization of CVD graphene devices fabricated with a scalable process route," in *Low Temperature Electronics (WOLTE), 2014 11th International Workshop on* (2014) pp. 89–92.
- [9] Prasenjit Bag, Joydeb Goura, Valeriu Mereacre, Ghenadie Novitchi, Annie. K. Powell, and Vadapalli Chandrasekhar, "Synthesis, magnetism and Mossbauer studies of tetranuclear heterometallic $\{\text{Fe}_2^{\text{III}}\text{Ln}_2\}$ (Ln = Gd, Dy, Tb) complexes: evidence of slow relaxation of magnetization in the terbium analogue," *Dalton Trans.* **43**, 16366–16376 (2014).
- [10] Stephane Berciaud, Marek Potemski, and Clement Faugeras, "Probing Electronic Excitations in Mono- to Penta-layer Graphene by Micro Magneto-Raman Spectroscopy," *Nano Letters* **14**, 4548–4553 (2014).
- [11] C. Betthausen, P. Giudici, A. Iankilevitch, C. Preis, V. Kolkovskiy, M. Wiater, G. Karczewski, B. A. Piot, J. Kunc, M. Potemski, T. Wojtowicz, and D. Weiss, "Fractional quantum Hall effect in a dilute magnetic semiconductor," *Physical Review B* **90**, 115302 (2014).
- [12] Ravi Bhatia, Jean Galibert, and Reghu Menon, "Magnetic field induced delocalization in multi-wall carbon nanotube-polystyrene composite at high fields," *Carbon* **69**, 372–378 (2014).
- [13] M. Bialek, A. M. Witowski, M. Orlita, M. Potemski, M. Czapkiewicz, J. Wróbel, V. Umansky, M. Grynberg, and J. Lusakowski, "Plasmonic terahertz detectors based on a high-electron mobility GaAs/AlGaAs heterostructure," *Journal of Applied Physics* **115**, 214503 (2014).
- [14] Isabelle Bisotto, Ethirajulu S Kannan, Jean-Claude Portal, Devin Brown, Thomas J Beck, Yuriy Krupko, Laurent Jalabert, Hiroyuki Fujita, Yusuke Hoshi, Yasuhiro Shiraki, and Takura Saraya, "Ratchet effect study in Si/SiGe heterostructures in the presence of asymmetrical antidots for different polarizations of microwaves," *Science and Technology of Advanced Materials* **15**, 045005 (2014).
- [15] S. Blackburn, B. Prévost, M. Bartkowiak, O. Ignatchik, A. Polyakov, T. Förster, M. Côté, G. Seyfarth, C. Capan, Z. Fisk, R. G. Goodrich, I. Sheikin, H. Rosner, A. D. Bianchi, and J. Wosnitzer, "Fermi-surface topology of the iron pnictide LaFe_2P_2 ," *Physical Review B* **89**, 220505 (2014).
- [16] Wim Bras, James Torbet, Gregory P. Diakun, Geert L. J. A. Rikken, and J. Fernando Diaz, "The Diamagnetic Susceptibility of the Tubulin Dimer," *Journal of Biophysics* **2014**, 985082 (2014).
- [17] Agathe Cadène, Paul Berceau, Mathilde Fouché, Rémy Battesti, and Carlo Rizzo, "Vacuum magnetic linear birefringence using pulsed fields: status of the BMV experiment," *The European Physical Journal D* **68**, 16 (2014).
- [18] Maria Cazacu, Angelica Vlad, Mirela-Fernanda Zaltariov, Sergiu Shova, Ghenadie Novitchi, and Cyrille Train, "Di- and tetracarboxylic aromatic acids with silane spacers and their copper complexes: Synthesis, structural characterization and properties evaluation," *Journal of Organometallic Chemistry* **774**, 70 – 78 (2014).
- [19] Nicolas Chopin, Maurice Médebille, Olivier Maury, Ghénadie Novitchi, and Guillaume Pilet, "Quenching of Fluorescence in Bodipy-Derived Trifluoromethyl Enaminone Ligands upon Coordination to Copper(II)," *European Journal of Inorganic Chemistry* **2014**, 6185 (2014).
- [20] Pierre Coddet, Christophe Verdy, Christian Coddet, Florence Lecouturier, and Francois Debray, "Comparison of the Properties of Cold-Sprayed Cu-0.5Cr-0.05Zr Alloys after Various Heat Treatments Versus Forged and Vacuum Plasma-Sprayed Alloys," *Journal Of Thermal Spray Technology* **23**, 486–491 (2014).

- [21] A. I. Coldea, L. Seabra, A. McCollam, A. Carrington, L. Malone, A. F. Bangura, D. Vignolles, P. G. van Rhee, R. D. McDonald, T. Soergel, M. Jansen, N. Shannon, and R. Coldea, "Cascade of field-induced magnetic transitions in a frustrated antiferromagnetic metal," *Physical Review B* **90**, 020401 (2014).
- [22] F. Debray and P. Frings, "State of the Art and Development of High Field Magnets at the Laboratoire National des Champs Magnétiques Intenses, France," *Magnetics Jpn.* **9**, 157 (2014).
- [23] Manuel Donaire, Geert L. J. A. Rikken, and Bart A. van Tiggelen, "A single-oscillator quantum model for magnetochiral birefringence," *European Physical Journal D* **68**, 33 (2014).
- [24] F. Duc, X. Fabrèges, T. Roth, C. Detlefs, P. Frings, M. Nardone, J. Billette, M. Lesourd, L. Zhang, A. Zitouni, P. Delescluse, J. Béard, J. P. Nicolin, and G. L. J. A. Rikken, "A 31 T split-pair pulsed magnet for single crystal x-ray diffraction at low temperature," *Review of Scientific Instruments* **85**, 053905 (2014).
- [25] Sahand Eslami, John G. Gibbs, Yvonne Reckemmer, Joris van Slageren, Mariana Alarcón-Correa, Tung-Chun Lee, Andrew G. Mark, Geert L. J. A. Rikken, and Peer Fischer, "Chiral Nanomagnets," *ACS Photonics* **1**, 1231–1236 (2014).
- [26] C. Faugeras, J. Binder, A. A. L. Nicolet, P. Leszczynski, P. Kossacki, A. Wyszomolek, M. Orlita, and M. Potemski, "A micro-magneto-Raman scattering study of graphene on a bulk graphite substrate," *Europhysics Letters* **108**, 27011 (2014).
- [27] C. Faugeras, M. Orlita, and M. Potemski, "Optical Magneto-Spectroscopy of Graphene-Based Systems," in *Physics of Graphene*, NanoScience and Technology, edited by Hideo Aoki and Mildred S. Dresselhaus (Springer International Publishing, 2014) pp. 113–140.
- [28] G. E. Ghezzi, P. Noé, M. Marra, C. Sabbione, F. Fillot, N. Bernier, J. Ferrand, S. Maîtrejean, and F. Hippert, "The effect of Ta interface on the crystallization of amorphous phase change material thin films," *Applied Physics Letters* **104**, 221605 (2014).
- [29] K. Golasa, M. Grzeszczyk, R. Bozek, P. Leszczynski, A. Wyszomolek, M. Potemski, and A. Babinski, "Resonant Raman scattering in MoS₂-From bulk to monolayer," *Solid State Communications* **197**, 53–56 (2014).
- [30] K. Golasa, M. Grzeszczyk, P. Leszczyński, C. Faugeras, A. A. L. Nicolet, A. Wyszomolek, M. Potemski, and A. Babiński, "Multiphonon resonant Raman scattering in MoS₂," *Applied Physics Letters* **104**, 092106 (2014).
- [31] M. F. Gonzalez-Zalba, J. Galibert, F. Iacovella, D. Williams, and T. Ferrus, "Evidence of magnetic field quenching of phosphorous-doped silicon quantum dots," *Current Applied Physics* **14**, S115–S118 (2014).
- [32] Joydeb Goura, Valeriu Mereacre, Ghenadie Novitchi, Annie K. Powell, and Vadapalli Chandrasekhar, "Homometallic Fe₄^{III} and Heterometallic {Fe₄^{III}Ln₂^{III}} (Ln = Dy, Tb) Complexes - Syntheses, Structures, and Magnetic Properties," *European Journal of Inorganic Chemistry* (2014), 10.1002/ejic.201402636.
- [33] G. Grissonnanche, O. Cyr-Choiniere, F. Laliberte, S. Rene de Cotret, A. Juneau-Fecteau, S. Dufour-Beausejour, M. E. Delage, D. LeBoeuf, J. Chang, B. J. Ramshaw, D. A. Bonn, W. N. Hardy, R. Liang, S. Adachi, N. E. Hussey, B. Vignolle, C. Proust, M. Sutherland, S. Krämer, J. H. Park, D. Graf, N. Doiron-Leyraud, and Louis Taillefer, "Direct measurement of the upper critical field in cuprate superconductors," *Nature Communications* **5**, 3280 (2014).
- [34] G. M. Gusev, Z. D. Kvon, E. B. Olshanetsky, A. D. Levin, Y. Krupko, J. C. Portal, N. N. Mikhailov, and S. A. Dvoretzky, "Temperature dependence of the resistance of a two-dimensional topological insulator in a HgTe quantum well," *Physical Review B* **89**, 125305 (2014).
- [35] Fuminori Honda, Yuki Taga, Yusuke Hirose, Shingo Yoshiuchi, Yoshiharu Tomooka, Masahiro Ohya, Jyunya Sakaguchi, Tetsuya Takeuchi, Rikio Settai, Yasuyuki Shimura, Toshiro Sakakibara, Ilya Sheikin, Toshiaki Tanaka, Yasunori Kubo, and Yoshichika Onuki, "Novel Electronic States of Heavy Fermion Compound YbCo₂Zn₂O," *Journal Of The Physical Society Of Japan* **83**, 044703 (2014).
- [36] Fabrice Iacovella, Pierre Trinsoutrot, Anatolie Mitioglu, Véronique Conédéra, Mathieu Pierre, Bertrand Raquet, Michel Goiran, Hugues Vergnes, Brigitte Caussat, Paulina Plochocka, and Walter Escoffier, "Magneto-transport properties of a random distribution of few-layer graphene patches," *Journal of Applied Physics* **116**, 193705 (2014).
- [37] Y. Ihara, M. Jeong, H. Mayaffre, C. Berthier, M. Horvatić, H. Seki, and A. Kawamoto, "¹³C NMR study of the charge-ordered state near the superconducting transition in the organic superconductor β⁺-(BEDT-TTF)₄[(H₃O)Ga(C₂O₄)₃·C₆H₅NO₂]," *Physical Review B* **90**, 121106 (2014).
- [38] B. Jabakhanji, A. Michon, C. Consejo, W. Desrat, M. Portail, A. Tiberj, M. Paillet, A. Zahab, F. Cheynis, F. Lafont, F. Schopfer, W. Poirier, F. Bertran, P. Le Fevre, A. Taleb-Ibrahimi, D. Kazazis, W. Escoffier, B. C. Camargo, Y. Kopelevich, J. Camassel, and B. Jouault, "Tuning the transport properties of graphene films grown by CVD on SiC(0001): Effect of in situ hydrogenation and annealing," *Physical Review B* **89**, 085422 (2014).
- [39] J. Jadczyk, L. Bryja, K. R. Czko, M. Kubisa, A. Wojs, M. Potemski, F. Liu, D. R. Yakovlev, M. Bayer, C. A. Nicoll, I. Farrer, and D. A. Ritchie, "High magnetic field studies of charged exciton localization in GaAs/Al_xGa_{1-x}As quantum wells," *Applied Physics Letters* **105**, 112104 (2014).
- [40] J. Jadczyk, P. Plochocka, A. Mitioglu, I. Breslavetz, M. Royo, A. Bertoni, G. Goldoni, T. Smolenski, P. Kossacki, A. Kretinin, Hadas Shtrikman, and D. K. Maude, "Unintentional High-Density p-Type Modulation Doping of a GaAs/AlAs Core-Multishell Nanowire," *Nano Letters* **14**, 2807–2814 (2014).
- [41] Filip Kadlec, Veronica Goian, Christelle Kadlec, Martin Kempa, Premysl Vanek, Jon Taylor, Stephane Rols, Jan Prokleska, Milan Orlita, and Stanislav Kamba, "Possible coupling between magnons and phonons in multiferroic CaMn₇O₁₂," *Physical Review B* **90**, 054307 (2014).
- [42] Hajime Kamebuchi, Masashi Okubo, Atsushi Okazawa, Masaya Enomoto, Jun Harada, Keiichiro Ogawa, Goro Maruta, Sadamu Takeda, Norimichi Kojima, Cyrille Train, and Michel Verdaguer, "A tricky water molecule coordinated to a verdazyl radical-iron(II) complex: a multitechnique approach," *Physical Chemistry Chemical Physics* **16**, 9086–9095 (2014).
- [43] Driss Kenfaui, Pierre-Frédéric Sibeud, Eric Louradour, Xavier Chaud, and Jacques G. Noudem, "An Effective Approach for the Development of Reliable YBCO Bulk Cryomagnets with High Trapped Field Performances," *Advanced Functional Materials* **24**, 3996–4004 (2014).

- [44] Yoshimitsu Kohama, Kenji Mochidzuki, Taku Terashima, Atsuhiko Miyata, Albin DeMuer, Thierry Klein, Christophe Marcenat, Z. L. Dun, Haidong Zhou, Gang Li, Luis Balicas, Nozomu Abe, Yasuhiro H. Matsuda, Shojiro Takeyama, Akira Matsuo, and Koichi Kindo, "Entropy of the quantum soliton lattice and multiple magnetization steps in BiCu₂PO₆," *Physical Review B* **90**, 060408 (2014).
- [45] G. Kopnov and G. L. J. A. Rikken, "A multichannel magneto-chiral dichroism spectrometer," *Review of Scientific Instruments* **85**, 053106 (2014).
- [46] D. A. Kozlov, Z. D. Kvon, N. N. Mikhailov, S. A. Dvoret'skii, S. Weishaeupl, Y. Krupko, and J. C. Portal, "Quantum Hall effect in HgTe quantum wells at nitrogen temperatures," *Applied Physics L* **105**, 132102 (2014).
- [47] V. G. Krishtop, V. G. Popov, M. Henini, Yu. Krupko, and J.-C. Portal, "Fine structure of phonon replicas in a tunnel spectrum of a GaAs quantum well," Proceedings of 22nd International symposium on Nanostructures: Physics and Technology, Saint Petersburg, Russia, June 23-27, 2014, 126–128 (2014), Academic University Publishing, St Petersburg.
- [48] V. G. Krishtop, V. G. Popov, M. Henini, Yu. Krupko, and J.-C. Portal, "Current dependency of the potential profile of resonant tunneling diode with accumulation 2D layer in the emitter," Proceedings of XVIII International symposium on Nanophysics & Nanoelectronics, Nizhny Novgorod March, 2014, 507–508 (2014), Academic University Publishing, St Petersburg.
- [49] P. Kuhn, A. Gavriluta, G. E. Buechel, V. B. Arion, L. Freitag, L. Gonzalez, J. Tommasino, E. Jeanneau, D. Luneau, and G. Novitchi, "Mechanism Elucidation of the cis-trans Isomerization of an Azole," *Journal Of Biological Inorganic Chemistry* **19**, S612 (2014).
- [50] Meriem Lamouchi, Erwann Jeanneau, Ghenadie Novitchi, Dominique Luneau, Arnaud Brioude, and Cedric Desroches, "Polynuclear Complex Family of Cobalt(II)/Sulfonylcalixarene: One-Pot Synthesis of Cluster Salt [Co-14(II)](+)[Co-4(II)](-) and Field-Induced Slow Magnetic Relaxation in a Six-Coordinate Dinuclear Cobalt(II)/Sulfonylcalixarene Complex," *Inorganic Chemistry* **53**, 63–72 (2014).
- [51] Vladimir Laukhin, Alain Audouard, David Vignolles, Loïc Drigo, Pere Alemany, and Enric Canadell, "Fermi surface and effect of high magnetic fields on the metal-semimetal Peierls-like transition of (TSeT)₂Cl," *Low Temperature Physics* **40**, 307–310 (2014).
- [52] Przemyslaw Leszczynski, Zheng Han, Aurelien A. L. Nicolet, Benjamin A. Piot, Piotr Kossacki, Milan Orlita, Vincent Bouchiat, Denis M. Basko, Marek Potemski, and Clement Faugeras, "Electrical Switch to the Resonant Magneto-Phonon Effect in Graphene," *Nano Letters* **14**, 1460–1466 (2014).
- [53] Xiao Lin, German Bridoux, Adrien Gourgout, Gabriel Seyfarth, Steffen Krämer, Marc Nardone, Benoit Fauqué, and Kamran Behnia, "Critical Doping for the Onset of a Two-Band Superconducting Ground State in SrTiO_{3-δ}," *Physical Review Letters* **112**, 207002 (2014).
- [54] Vivaldo Lopes-Oliveira, Yuriy I. Mazur, Leonardo Dias de Souza, Lucas A. Bernardes Marcal, Jiang Wu, Marcio Daldin Teodoro, Angelo Malachias, Vitaliy G. Dorogan, Mourad Benamara, Georgiy G. Tarasov, Euclides Marega, Jr., Gilmar E. Marques, Zhiming M. Wang, Milan Orlita, Gregory J. Salamo, and Victor Lopez-Richard, "Structural and magnetic confinement of holes in the spin-polarized emission of coupled quantum ring-quantum dot chains," *Physical Review B* **90**, 125315 (2014).
- [55] Anais Loubat, Marianne Imperor-Clerc, Brigitte Pansu, Florian Meneau, Bertrand Raquet, Guillaume Viau, and Lise-Marie Lacroix, "Growth and Self-Assembly of Ultrathin Au Nanowires into Expanded Hexagonal Super lattice Studied by in Situ SAXS," *Langmuir* **30**, 4005–4012 (2014).
- [56] R. Lyubovskaya, E. Zhilyaeva, G. Shilov, A. Audouard, D. Vignolles, E. Canadell, and R. Pesotskii, S.and Lyubovskii, "Dual-Layered Quasi-Two-Dimensional Organic Conductors with Presumable Incoherent Electron Transport," *European Journal of Inorganic Chemistry* **2014**, 3820–3836 (2014).
- [57] Julyana R. Machado, Amer Baniodeh, Annie K. Powell, Burkhard Luy, Steffen Krämer, and Gisela Guthausen, "Nuclear Magnetic Resonance Relaxivities: Investigations of Ultrahigh-Spin Lanthanide Clusters from 10 MHz to 1.4 GHz," *ChemPhysChem* **15**, 3608–3613 (2014).
- [58] Samantha A. Magee, Stephen Sproules, Anne-Laure Barra, Grigore A. Timco, Nicholas F. Chilton, David Collison, Richard E. P. Winpenny, and Eric J. L. McInnes, "Large Zero-Field Splittings of the Ground Spin State Arising from Antisymmetric Exchange Effects in Heterometallic Triangles," *Angewandte Chemie International Edition* **53**, 5310–5313 (2014).
- [59] A. Malagoli, V. Braccini, M. Vignolo, X. Chaud, and M. Putti, "Groove-rolling as an alternative process to fabricate Bi-2212 wires for practical applications," *Superconductor Science & Technology* **27**, 055022 (2014).
- [60] P. Manil, G. Aubert, R. Berthier, P. Fazilleau, B. Hervieu, W. Joss, F. Nunio, P. Pugat, and C. Trophime, "Dynamical Response of Hybrid Magnet Structure Featuring Eddy-Current Shield During Transient Failure Mode," *Applied Superconductivity, IEEE Transactions on* **24**, 1–6 (2014).
- [61] M. Marie-Jeanne, J. Angot, P. Balint, C. Fourel, G. Freche, J. Giraud, J. Jacob, T. Lamy, L. Latrassé, P. Sole, P. Sortais, T. Thuillier, F. Debray, C. Trophime, S. Veys, C. Daversin, V. Zorin, I. Izotov, and V. Skalyga, "Status of the seism experiment," in *Proceedings of the 20th International Workshop on Electron Cyclotron Resonance Ion Sources, Sydney, Australia*, Vol. ISBN: 9781632664686 (Curran Associates, Inc., 2014).
- [62] Raphael Marx, Fabrizio Moro, Maria Dorfel, Liviu Ungur, Michael Waters, Shang-Da Jiang, Milan Orlita, Jon W Taylor, Wolfgang Frey, Liviu Chibotaru, and Joris van Slageren, "Spectroscopic Determination of Crystal Field Splittings in Lanthanide Double Deckers," *Chem. Sci.* **5**, 3287–3293 (2014).
- [63] R. Mathevet, "Approche expérimentale de l'équation de diffusion," *Bulletin de l'Union des Physiciens* **962**, 441 (2014).
- [64] Renaud Mathevet and Geert L. J. A. Rikken, "Magnetic circular dichroism as a local probe of the polarization of a focused Gaussian beam," *Opt. Mater. Express* **4**, 2574–2585 (2014).
- [65] D.K. Maude, B.A. Piot, and W. Desrat, "The contact hyperfine interaction and the integer and fractional quantum Hall effects," in *Low Temperature Electronics (WOLTE), 2014 11th International Workshop on* (2014) pp. 49–52.
- [66] Catalin Maxim, Sylvie Ferlay, Hiroko Tokoro, Shin-Ichi Ohkoshi, and Cyrille Train, "Atypical stoichiometry for a

- 3D bimetallic oxalate-based long-range ordered magnet exhibiting high proton conductivity,” *Chemical Communications* **50**, 5629–5632 (2014).
- [67] H. Mayaffre, M. Horvatić S. Krämer, C. Berthier, K. Miyagawa, K. Kanoda, and V. F. Mitrović, “Evidence of Andreev bound states as a hallmark of the FFLO phase in κ -(BEDT-TTF)₂Cu(NCS)₂,” *Nature Physics* **10** (2014), 10.1038/nphys3121.
- [68] Areej Merhi, Thierry Roisnel, Stephane Rigaut, Cyrille Train, and Lucie Norel, “Ferromagnetic intermolecular exchange interaction in ethynyl-verdazyl radical crystals,” *CrystEngComm* **16**, 9783–9787 (2014).
- [69] A. A. Mitioğlu, P. Plochocka, G. Deligeorgis, S. Anghel, L. Kulyuk, and D. K. Maude, “Second-order resonant Raman scattering in single-layer tungsten disulfide WS₂,” *Physical Review B* **89**, 245442 (2014).
- [70] Martin Mittendorff, Milan Orlita, Marek Potemski, Claire Berger, Walter de Heer, Harald Schneider, Manfred Helm, and Stephan Winnerl, “Intraband carrier dynamics in Landau-quantized multilayer epitaxial graphene,” *New Journal of Physics* **16**, 123021 (2014).
- [71] Martin Mittendorff, Florian Wendler, Ermin Malic, Andreas Knorr, Milan Orlita, Marek Potemski, Claire Berger, Walter A. de Heer, Harald Schneider, Manfred Helm, and Stephan Winnerl, “Carrier dynamics in Landau-quantized graphene featuring strong Auger scattering,” *Nature Physics* (2014), 10.1038/nphys3164.
- [72] Y. Miyoshi, H. Kitaguchi, X. Chaud, F. Debray, G. Nishijima, and Y. Tsuchiya, “Homogeneous performance and strain tolerance of long Bi-2223 HTS conductors under hoop stress,” *Superconductor Science & Technology* **27**, 025003 (2014).
- [73] M.R. Molas, A.A.L. Nicolet, B. Pietka, A. Babinski, and M. Potemski, “Magnetic field effect on the excitation spectrum of a neutral exciton in a single quantum dot,” *Acta Physica Polonica* **126**, 1066 (2014).
- [74] Sina Najmaei, Adnen Mlayah, Arnaud Arbouet, Christian Girard, Jean Léotin, and Jun Lou, “Plasmonic Pumping of Excitonic Photoluminescence in Hybrid MoS₂-Au Nanostructures,” *ACS Nano* **8**, 12682–12689 (2014).
- [75] Sanjit Nayak, Ghenadie Novitchi, Malgorzata Holynska, and Stefanie Dehnen, “Two Heterometallic Ionic Compounds with Isolated [3d] and [4f] Complex Units: Field-Induced Single-Ion Magnet (SIM) Behavior Observed from a Mononuclear Dysprosium(III) Complex,” *European Journal Of Inorganic Chemistry* **2014**, 3065–3071 (2014).
- [76] Gen Nishijima, Hitoshi Kitaguchi, Yasuyuki Miyoshi, Xavier Chaud, Francois Debray, and Pascal Tixador, “Transport Characteristics of a Bi-2223 Solenoid Coil in High Magnetic Fields,” *IEEE Transactions On Applied Superconductivity* **24**, 8000204 (2014).
- [77] Alain Nogaret, Maxim E. Stebliy, Jean Claude Portal, Alexander S. Samardak, Alexey V. Ognev, Harvey E. Beere, and David A. Ritchie, “Photovoltage Spectroscopy of Dipolar Spin Waves in Dy Micromagnets,” *Solid State Phenomena* **215**, 400–406 (2014).
- [78] Michael R. Norman and Cyril Proust, “Focus on fermiology of the cuprates,” *New Journal Of Physics* **16**, 045004 (2014).
- [79] M. Orlita, D. M. Basko, M. S. Zholudev, F. Teppe, W. Knap, V. I. Gavrilenko, N. N. Mikhailov, S. A. Dvoretiskii, P. Neugebauer, C. Faugeras, A-L. Barra, G. Martinez, and M. Potemski, “Observation of three-dimensional massless Kane fermions in a zinc-blende crystal,” *Nature Physics* **10**, 233–238 (2014).
- [80] Kasper S. Pedersen, Marc Sigrist, Mikkel A. Sorensen, Anne-Laure Barra, Thomas Weyhermüller, Stergios Piligkos, Christian Aa. Thuesen, Morten G. Vinum, Hannu Mutka, Hogni Weihe, Rodolphe Clérac, and Jesper Bendix, “[ReF₆]²⁻: A Robust Module for the Design of Molecule-Based Magnetic Materials,” *Angewandte Chemie International Edition* **53**, 1351–1354 (2014).
- [81] Kasper S. Pedersen, Marc Sigrist, Hogni Weihe, Andrew D. Bond, Christian Aa. Thuesen, Kim P. Simonsen, Torben Birk, Hannu Mutka, Anne-Laure Barra, and Jesper Bendix, “Magnetic Interactions through Fluoride: Magnetic and Spectroscopic Characterization of Discrete, Linearly Bridged [Mn₂^{III}(μ -F)F₄(Me₃tacn)₂](PF₆),” *Inorganic Chemistry* **53**, 5013–5019 (2014).
- [82] M. L. Peres, H. S. Monteiro, V. A. Chitta, S. de Castro, U. A. Mengui, P. H. O. Rappl, N. F. Oliveira, E. Abramof, and D. K. Maude, “Experimental investigation of spin-orbit coupling in n-type PbTe quantum wells,” *Journal of Applied Physics* **115**, 093704 (2014).
- [83] S. Pezzini, C. Cobaleda, B. A. Piot, V. Bellani, and E. Diez, “Critical point for the canted antiferromagnetic to ferromagnetic phase transition at charge neutrality in bilayer graphene,” *Physical Review B* **90**, 121404 (2014).
- [84] Flavia Pop, Pascale Auban-Senzier, Enric Canadell, Geert L. J. A. Rikken, and Narcis Avarvari, “Electrical magneto-chiral anisotropy in a bulk chiral molecular conductor,” *Nature Communications* **5**, 3757 (2014).
- [85] V.G. Popov, O.N. Makarovskiy, L. Eaves, M. Henini, and J.-C. Portal, “Fine structure of phonon replicas in a tunnel spectrum of a GaAs quantum well,” Proceedings of 22nd International symposium on Nanostructures: Physics and Technology, Saint Petersburg, Russia, June 23-27, 2014, 130–131 (2014), Academic University Publishing, St Petersburg.
- [86] Alexandre Pourret, Dai Aoki, Mounir Boukahil, Jean-Pascal Brison, William Knafo, Georg Knebel, Stephane Raymond, Mathieu Taupin, Yoshichika Onuki, and Jacques Flouquet, “Quantum Criticality and Lifshitz Transition in the Ising System CeRu₂Si₂: Comparison with YbRh₂Si₂,” *Journal of the Physical Society of Japan* **83**, 061002 (2014).
- [87] Tatiana Prikhna, Michael Eisterer, Harald W. Weber, Wolfgang Gawalek, Valeriy Kovylaev, Myroslav Karpets, Viktor Moshchil, Artem Kozyrev, Tatiana Basyuk, Xavier Chaud, Wilfried Goldacker, Vladimir Sokolovsky, Jacques Noudem, Alexandr Borimskiy, Vladimir Sverdun, and Elena Prisyazhnaya, “Temperature-pressure induced nanostructural inhomogenities for vortex pinning in bulk MgB₂ of different connectivity,” *Physica C-Superconductivity and its Applications* **503**, 109–112 (2014).
- [88] P. Pugat, R. Ballou, M. Schott, T. Husek, M. Sulc, G. Deferne, L. Duvillaret, Jr. Finger, M., M. Finger, L. Flekova, J. Hosek, V. Jary, R. Jost, M. Kral, S. Kunc, K. Macuchova, K.A. Meissner, J. Morville, D. Romanini, A. Siemko, M. Slunicka, G. Vitrant, and J. Zicha, “Search for weakly interacting sub-eV particles with the OSQAR laser-based experiment: results and perspectives,” *The European Physical Journal C* **74**, 3027 (2014), 10.1140/epjc/s10052-014-3027-8.

- [89] P. Pagnat, R. Barbier, C. Berriaud, R. Berthier, F. Debray, P. Fazilleau, B. Hervieu, P. Manil, M. Massinger, C. Pes, R. Pfister, M. Pissard, L. Ronayette, and C. Trophime, "Progress Report on the 43 T Hybrid Magnet of the LNCMI-Grenoble," *IEEE Transactions On Applied Superconductivity* **24**, 4301305 (2014).
- [90] P. Pagnat and H.J. Schneider-Muntau, "Hybrid Magnets; Past, Present, and Future," *Applied Superconductivity, IEEE Transactions on* **24**, 1–6 (2014).
- [91] C. Putzke, P. Walmsley, J. D. Fletcher, L. Malone, D. Vignolles, C. Proust, S. Badoux, P. See, H. E. Beere, D. A. Ritchie, S. Kasahara, Y. Mizukami, T. Shibauchi, Y. Matsuda, and A. Carrington, "Anomalous critical fields in quantum critical superconductors," *Nature Communications* **5**, 5679 (2014).
- [92] Luca Rigamonti, Andrea Cornia, Andrea Nava, Mauro Perfetti, Marie-Emmanuelle Boulon, Anne-Laure Barra, Xiaoliang Zhong, Kyungwha Park, and Roberta Sessoli, "Mapping of single-site magnetic anisotropy tensors in weakly coupled spin clusters by torque magnetometry," *Physical Chemistry Chemical Physics* **16**, 17220–17230 (2014).
- [93] Renaud Ruamps, Luke J. Batchelor, Regis Guillot, Georges Zakhia, Anne-Laure Barra, W. Wernsdorfer, Nathalie Guihery, and Tatal Mallah, "Ising-type magnetic anisotropy and single molecule magnet behaviour in mononuclear trigonal bipyramidal Co(II) complexes," *Chemical Science* **5**, 3418–3424 (2014).
- [94] G. W. Scheerer, W. Knafo, D. Aoki, M. Nardone, A. Zitouni, J. Beard, J. Billette, J. Barata, C. Jaudet, M. Suleiman, P. Frings, L. Drigo, A. Audouard, T. D. Matsuda, A. Pourret, G. Knebel, and J. Flouquet, "Fermi surface in the hidden-order state of URu₂Si₂ under intense pulsed magnetic fields up to 81 T," *Physical Review B* **89**, 165107 (2014).
- [95] M. Schneider, D. Geiger, S. Esser, U. S. Pracht, C. Stingl, Y. Tokiwa, V. Moshnyaga, I. Sheikin, J. Mravlje, M. Scheffler, and P. Gegenwart, "Low-Energy Electronic Properties of Clean CaRuO₃: Elusive Landau Quasiparticles," *Physical Review L* **112**, 206403 (2014).
- [96] Minju Shin, Ming Shi, Mireille Mouis, Antoine Cros, Emmanuel Josse, Sutirha Mukhopadhyay, Benjamin Piot, Gyu-Tae Kim, and Gérard Ghibaudo, "Magnetoresistance mobility characterization in advanced FD-SOI n-MOSFETs," *Solid-State Electronics* (2014), 10.1016/j.sse.2014.07.007, (Available online 15th August 2014).
- [97] A. Simons, A. Gerber, I. Ya. Korenblit, A. Suslov, B. Raquet, M. Passacantando, L. Ottaviano, G. Impellizzeri, and B. Aronzon, "Components of strong magnetoresistance in Mn implanted Ge," *Journal Of Applied Physics* **115**, 093703 (2014).
- [98] Radostina Stoyanova, Svetlana Ivanova, Ekaterina Zhecheva, Ago Samoson, Svetlana Simova, Pavleta Tzvetkova, and Anne-Laure Barra, "Correlations between lithium local structure and electrochemistry of layered LiCo_{1-2x}Ni_xMn_xO₂ oxides: Li-7 MAS NMR and EPR studies," *Physical Chemistry Chemical Physics* **16**, 2499–2507 (2014).
- [99] Hiroki Takahashi, Carlos Fernandez-De-Alba, Daniel Lee, Vincent Maurel, Serge Gambarelli, Michel Bardet, Sabine Hediger, Anne-Laure Barra, and Gael De Paepe, "Optimization of an absolute sensitivity in a glassy matrix during DNP-enhanced multidimensional solid-state NMR experiments," *Journal Of Magnetic Resonance* **239**, 91–99 (2014).
- [100] Natália Tomasovicová, Milan Timko, Vlasta Závistová, Anezka Hashim, Jan Jadzyn, Xavier Chaud, Eric Beaugnon, and Peter Kopcansky, "Phase Transitions in Liquid Crystal Doped with Magnetic Particles of Different Shapes in Combined Electric and Magnetic Fields," *International Journal of Thermophysics* **35**, 2044–2053 (2014).
- [101] Florian Vigneau, Vladimir Prudkovkiy, Ivan Duchemin, Walter Escoffier, Philippe Caroff, Yann-Michel Niquet, Renaud Leturcq, Michel Goiran, and Bertrand Raquet, "Magnetotransport Subband Spectroscopy in InAs Nanowires," *Physical Review Letters* **112**, 076801 (2014).
- [102] Despoina Vriami, Eric Beaugnon, Kim Vanmeensel, Jozef Vleugels, and Omer Van der Biest, "Texturing of 3Y-TZP zirconia by electrophoretic deposition in a high magnetic field of 17.4T," *Journal of the European Ceramic Society* **34**, 3879–3885 (2014).
- [103] James P. S. Walsh, Stephen Sproules, Nicholas F. Chilton, Anne-Laure Barra, Grigore A. Timco, David Collison, Eric J. L. McInnes, and Richard E. P. Wimpenny, "On the Possibility of Magneto-Structural Correlations: Detailed Studies of Dinickel Carboxylate Complexes," *Inorganic Chemistry* **53**, 8464–8472 (2014).
- [104] Jun Wang, Jinshan Li, Rui Hu, Hongchao Kou, and Eric Beaugnon, "Anomalous magnetism and normal field instability in supercooled liquid cobalt," *Applied Physics Letters* **105**, 144101 (2014).
- [105] M. D. Watson, A. McCollam, S. F. Blake, D. Vignolles, L. Drigo, I. I. Mazin, D. Guterding, H. O. Jeschke, R. Valenti, N. Ni, R. Cava, and A. I. Coldea, "Field-induced magnetic transitions in Ca₁₀(Pt₃As₈)((Fe_{1-x}Pt_x)₂As₂)₅ compounds," *Physical Review B* **89**, 205136 (2014).
- [106] E. Wildner, C. Hansen, E. Benedetto, E. Jensen, T. Stora, T. M. Mendonca, V. Vlachoudis, E. Bouquerel, M. Marie-Jeanne, P. Balint, C. Fourel, J. Giraud, J. Jacob, T. Lamy, L. Latrasse, P. Sortais, T. Thuillier, S. Mitrofanov, M. Loiselet, Th. Keutgen, Th. Delbar, F. Debray, C. Trophime, S. Veys, C. Daversin, V. Zorin, I. Izotov, V. Skalyga, A. Chancé, J. Payet, G. Burt, A. C. Dexter, V. L. Kravchuk, T. Marchi, M. Cinausero, F. Gramegna, G. De Angelis, G. Prete, G. Collazuol, M. Mezzetto, E. Vardaci, A. Di Nitto, A. Brondi, G. La Rana, R. Moro, V. Palladino, N. Gelli, M. Mazzocco, C. Signorini, T. Y. Hirsh, M. Hass, D. Berkovits, A. Stahl, M. Schaumann, and J. Wehner, "Design of a neutrino source based on beta beams," *Phys. Rev. ST Accel. Beams* **17**, 071002 (2014).
- [107] M. V. Yakushev, A. V. Rodina, G. M. Shuchalin, R. P. Seisian, M. A. Abdullaev, A. Rockett, V. D. Zhivulko, A. V. Mudryi, C. Faugeras, and R. W. Martin, "Landau levels of the C-exciton in CuInSe₂ studied by magneto-transmission," *Applied Physics Letters* **105**, 142103 (2014).
- [108] Songjie Yang, Flavia Pop, Caroline Melan, Andrew C. Brooks, Lee Martin, Peter Horton, Pascale Auban-Senzier, Geert L. J. A. Rikken, Narcis Avarvari, and John D. Wallis, "Charge transfer complexes and radical cation salts of chiral methylated organosulfur donors," *CrystEngComm* **16**, 3906–3916 (2014).
- [109] R. V. Yu, G. L. and Gorbachev, J. S. Tu, A. V. Kretinin, Y. Cao, R. Jalil, F. Withers, L. A. Ponomarenko, B. A. Piot, M. Potemski, D. C. Elias, X. Chen, K. Watanabe, T. Taniguchi, I. V. Grigorieva, K. S. Novoselov, V. I. Fal'ko, A. K. Geim, and A. Mishchenko, "Hierarchy of Hofstadter states and replica quantum Hall ferromagnetism in graphene superlattices," *Nature Physics* **10**, 525–529 (2014).

- [110] Mirela-Fernanda Zaltariov, Mihaela Alexandru, Maria Cazacu, Sergiu Shova, Ghenadie Novitchi, Cyrille Train, Anatolie Dobrov, Marina V. Kirillova, Elisabete C. B. A. Alegria, Armando J. L. Pombeiro, and Vladimir B. Arion, "Tetranuclear Copper(II) Complexes with Macrocyclic and Open-Chain Disiloxane Ligands as Catalyst Precursors for Hydrocarboxylation and Oxidation of Alkanes and 1-Phenylethanol," *European Journal of Inorganic Chemistry* **2014**, 4946–4956 (2014).
- [111] Yuan-Yuan Zhu, Ting-Ting Yin, Shang-Da Jiang, Anne-Laure Barra, Wolfgang Wernsdorfer, Petr Neugebauer, Raphael Marx, Maria Dorfel, Bing-Wu Wang, Zong-Quan Wu, Joris van Slageren, and Song Gao, "The solvent effect in an axially symmetric Fe_4^{III} single-molecule magnet," *Chem. Commun.* **50**, 15090–15093 (2014).