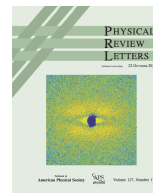
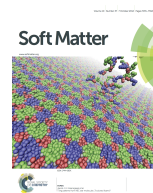
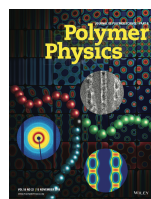
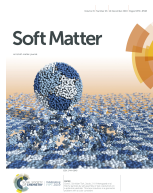


# Jacob Kirkensgaard Publications



## Peer-reviewed papers

- 97 Jessop A, Shaw J, Millsteed A, **Kirkensgaard JJK**, Clode PL and Schröder-Turk GE, Composite material in the sea urchin *Cidaris rugosa*: ordered and disordered micron-scale bicontinuous geometries, **Interface**, Accepted
- 96 Tian Y, Liu X, Petersen BL, Li H, **Kirkensgaard JJK**, Enemark-Rasmussen K, Khakimov B, Hebelstrup KH, Zhong Y and Blennow A, Characterization of Different High Amylose Starch Granules. Part II: Structure Evolution During Digestion and Distinct Digestion Mechanisms, **Food Hydrocolloids** 2024, 149, 109593
- 95 Hough M, Deditius AP, Robinson N, Schröder-Turk GE, **Kirkensgaard JJK**, Gun'ko VM, Neimark AV, Kaneko K and Kowalczyk P, Ultrasonic spray nozzle-mediated green activation for hierarchical-pore structured carbon beads, **ACS Sustainable Chemistry & Engineering**, 2024, 12, 2, 737–750
- 94 Aharon-Kuperman O, de Andrade P, Terlier T, **Kirkensgaard JJK**, Field R and Natalio F, The Effect of a Low Degree of Fluorine Substitution on Cotton Fiber Properties, **Macromolecular Materials and Engineering**, 2023, 2300337
- 93 Chen Q, Auras R, **Kirkensgaard JJK** and Uysal-Unalan I, Modulating Barrier Properties of Stereocomplex Polylactide: Polymorphism Mechanism and its Relationship with Rigid Amorphous Fraction, **ACS Applied Materials & Interfaces**, 2023, 15, 42, 49678–49688
- 92 Tian Y, Liu X, **Kirkensgaard JJK**, Khakimov B, Enemark-Rasmussen K, Hebelstrup KH, Blennow A and Zhong Y, Characterization of different high amylose starch granules. Part I: Multi-scale structures and relationships to thermal properties, **Food Hydrocolloids**, 2024, 146, 109286
- 91 Faisal M, Zmiric M, Kim NQN, Bruun S, Mariniello L, Famiglietti M, Bordallo HN, **Kirkensgaard JJK**, Jørgensen B, Ulvskov P, Hebelstrup KH and Blennow A, A comparison of cellulose nanocrystals and nanofibers as reinforcements to amylose-based composite bioplastics, **Coatings**, 2023, 13, 1573
- 90 Faisal M, Bevilacqua M, Bro R, Bordallo HN, **Kirkensgaard JJK**, Hebelstrup KH and Blennow, Colorimetric pH indicators based on well-defined amylose and amylopectin matrices enriched with anthocyanins from red cabbage, **International Journal of Biological Macromolecules**, 2023, 250, 126250
- 89 Larsen AH, Brooke E, Pedersen MC and **Kirkensgaard JJK**, Shape2SAS - a program to simulate small-angle scattering data and pair distance distribution functions from geometrical shapes, **Journal of Applied Crystallography**, 2023, 56
- 88 Krog LS, **Kirkensgaard JJK**, Fodera V, Boyd BJ and Berzins K, Application of Low-Frequency Raman Spectroscopy to Probe Dynamics of Lipid Mesophase Transformations upon Hydration, **The Journal of Physical Chemistry B**, 2023, 127, 3223-3230
- 87 Ding L, Liang W, Qu JZ, Persson S, Liu X, Herburger K, **Kirkensgaard JJK**, Khakimov B, Enemark-Rasmussen K, Blennow A and Zhong Y, Effects of natural starch-phosphate monoester content on the multi-scale structures of potato starch granules, **Carbohydrate Polymers**, 2023, 310, 120740
- 86 Pedersen MC, Hyde ST, Ramsden S and **Kirkensgaard JJK\***, Mapping hyperbolic order in curved materials, **Soft Matter**, 2023, 19, 1586
- 85 Liang W, Ding L, Guo K, Liu Y, Wen X, **Kirkensgaard JJK**, Khakimov B, Enemark-Rasmussen K, Hebelstrup KH, Herburger K, Liu X, Persson S, Blennow A. and Zhong Y, The relationship between starch structure and digestibility by time-course digestion of amylopectin-only and amylose-only barley starches, **Food Hydrocolloids**, 2023, 139, 108491
- 84 Liu Z, Zhong Y, Khakimov B, Fu Y, Czaja TP, **Kirkensgaard JJK**, Shen Q and Engelsen SB, Insights into high hydrostatic pressure pre-treatment generating a more efficient catalysis mode of maltogenic  $\alpha$ -amylase: Effect of multi-level structure on retrogradation properties of maize starch, **Food Hydrocolloids**, 2023, 138, 108480
- 83 Mathiesen JK, Quinson J, Blaseio S, Kjær ETS, Dworzak A, Cooper A, Pedersen JK, Wang B, Bizotto F, Schröder J, Kinnibrugh TL, Simonsen SB, Kuhn LT, **Kirkensgaard JJK**, Rossmeisl J, Oezaslan M, Arenz M and Jensen KMØ, Chemical insights on the formation of colloidal iridium nanoparticles from in situ X-ray total scattering: Influence of precursors and cations on the reaction pathway, **Journal of the American Chemical Society**, 2023, 145, 3, 1769-1782

- 82 Mohammad-Beigi H, Wijaya W, Madsen M, Hayashi Y, Li R, Rovers TAM, Jæger TC, Buell AK, Hougaard AB, **Kirkensgaard JJK**, Westh P, Ipsen R and Svensson B, Association of caseins with  $\beta$ -lactoglobulin influenced by temperature and calcium ions: A multi-parameter analysis, **Food Hydrocolloids**, 2023, 137, 108373
- 81 Aljabbari A, Lokras AB, **Kirkensgaard JJK**, Rades T, Franzyk H, Thakur A, Zhang Y and Foged C, Elucidating the nanostructure of siRNA-loaded lipidoid-polymer hybrid nanoparticles, **Journal of Colloid and Interface Science**, 2023, 633, 907-922
- 80 Schamberger B, Roschger A, Ziege R, Anselme K, Amar MB, Bykowski M, Castro A, Cipitria A, Coles R, Dimova R, Eder M, Ehrig S, Escudero L, Evans M, Fernannades P, Fratzl P, Geris L, Gierlinger N, Hannezo E, Iglic A, **Kirkensgaard JJK**, Kollmannsberger P, Kowalewska L, Kurniawan N, Papantoniou I, Pieuchot L, Pires T, Renner L, Sageman-Furnas A, Schröder-Turk GE, Sengupta A, Sharma V, Tagua A, Tomba C, Trepas X, Waters S, Yeo E, Bidan C and Dunlop J, Curvature in Biological Systems: Its quantification, emergence and implications across the scales, **Advanced Materials**, 2023, 35, 2206110
- 79 Schröder J, Pittkowski RK, Du J, **Kirkensgaard JJK** and Arenz M, Investigating the particle growth in bimodal Pt/C catalysts by small-angle X-ray scattering: Challenges in the evaluation of stress test protocol-dependent degradation mechanisms, **Journal of The Electrochemical Society**, 2022, 169, 104504
- 78 Chen Q, Auras R, Corredig M, **Kirkensgaard JJK**, Mamakhel A and Uysal-Unalan I, New opportunities for sustainable plastic development: Tailorable polymorphic and three-phase crystallization of stereocomplex polylactide by layered double hydroxide, **International Journal of Biological Macromolecules**, 2022, 222, 1101-1109
- 77 Kumar S, Risbo J, **Kirkensgaard JJK** and Cabrera Y, LEO and LiMO Fuels: Structural and rheological characterization of solvolytically fractionated lignin dispersed in alcohols, **ACS Sustainable Chemistry & Engineering**, 2022, 10, 39, 13156-13164
- 76 Du J, Quinson J, Zhang D, Wang B, Wiberg GKH, Pittkowski RK, Schröder J, Simonsen SB, **Kirkensgaard JJK**, Li Y, Reichenberger S, Barcikowski S, Jensen KMØ and Arenz M, Nanocomposite Concept for Electrochemical in situ Preparation of Pt-Au Alloy Nanoparticles for Formic Acid Oxidation, **JACS Au**, 2022, 2 (7), 1757-1768
- 75 Li R, Jæger TC, Rovers TAM, Svensson B, Ipsen R, **Kirkensgaard JJK\*** and Hougaard AB, In situ SAXS study of non-fat milk model systems during heat treatment and acidification, **Food Research International**, 2022, 157, 111292
- 74 Schröder J, Pittkowski RK, Martens I, Chattot R, Drnec J, Quinson J, **Kirkensgaard JJK** and Arenz M, Tracking the Catalyst Layer Depth-Dependent Electrochemical Degradation of a Bimodal Pt/C Fuel Cell Catalyst: A Combined Operando Small- and Wide-Angle X-Ray Scattering Study, **ACS Catalysis**, 2022, 12, 2077-2085
- 73 Mortensen K, Borger A, **Kirkensgaard JJK**, Hassager O, Huang Q and Almdal K, Small angle neutron scattering study of the structural relaxation of elongationally oriented, moderately stretched 3-arm star polymers, **Physical Review Letters**, 2021, 127, 177801
- 72 Schmidt CV, Plankensteiner L, Clausen MP, Walther AR, **Kirkensgaard JJK**, Mouritsen OG and Olsen K, Gastrophysical and chemical characterization of structural changes in cooked squid mantle, **Journal of Food Science: New Horizons in Food Research**, 2021, 86:4811-4827
- 71 Zhong Y, Herburger K, Xu J, **Kirkensgaard JJK**, Khakimov B, Riise Hansen A and Blennow A, Ethanol pretreatment increases the effects of maltogenic  $\alpha$ -amylase and branching enzyme treatment on granular maize starch, **Food Hydrocolloids**, 2022, 123, 107118
- 70 Yang S, Tyler All, Ahrné L and **Kirkensgaard JJK\***, Skim milk structural dynamics during high hydrostatic pressure treatment studied by *in situ* SAXS: Effects of pressure intensity, treatment time, temperature and cycled treatment, **Food Research International**, 2021, 147, 110527
- 69 Zhong Y, Herburger K, **Kirkensgaard JJK**, Khakimov B, Riise Hansen A and Blennow A., Sequential maltogenic  $\alpha$ -amylase and branching enzyme treatment to modify granular corn starch, **Food Hydrocolloids**, 2021, 120, 106904
- 68 Zhong Y, Tian Y, Liu X, Ding L, **Kirkensgaard JJK**, Hebelstrup, K, Putaux J and Blennow A, Influence of microwave treatment on the structure and functionality of pure amylose and amylopectin systems, **Food Hydrocolloids**, 2021, 119, 106856
- 67 Schröder J, Quinson J, **Kirkensgaard JJK** and Arenz M, *Operando* SAXS Study of a Pt/C Fuel Cell Catalyst with an X-ray Laboratory Source, **Journal of Physics D: Applied Physics**, 2021, 54, 294004
- 66 Mathiesen JK, Quinson J, Dworzak A, Vosch T, Juelsholt M, Kjær ES, Schröder J, **Kirkensgaard JJK**, Oezaslan M, Arenz M and Jensen KMØ, Insights from In situ Studies on the Early Stages of Platinum Nanoparticle Formation, **The Journal of Physical Chemistry Letters**, 2021, 12, 3224-3231
- 65 Quinson J, Dworzak A, Simonsen SB, Kuhn LT, Jensen KMØ, Oezaslan M, **Kirkensgaard JJK** and Arenz M, Surfactant-free synthesis of size controlled Pt nanoparticles: insights from in situ studies, **Applied Surface Science**, 2021, 549, 149263
- 64 Liu X, **Kirkensgaard JJK** and Skibsted LH, Temperature effects on spontaneous supersaturation of calcium citrate in presence of lactate, **International Dairy Journal**, 2021, 118, 105023

- 63 Jakubauskas D, Mortensen K, Jensen PE and **Kirkensgaard JJK\***, Small-Angle X-ray and Neutron Scattering on Photosynthetic Membranes, **Frontiers of Chemistry**, 2021, 9, 631370
- 62 Felix Da Silva Tenório D, Wang H, Czaja TP, van der Berg F, **Kirkensgaard JJK**, Ipsen R and Hougaard A, Effects of homogenization and pH adjustment of cheese feed without emulsifying salt on the physical properties of high fat cheese powder, **Powder Technology**, 2021, 378, 227-236
- 61 Liu X, **Kirkensgaard JJK** and Skibsted LH, Hydrates of Calcium Citrate and Their Interconversion in Relation to Calcium Bioavailability, **Food Research International**, 2020, 109867
- 60 Alinejad S, Quinson J, Schröder J, **Kirkensgaard JJK** and Arenz M, Carbon-supported platinum electrocatalysts probed in a gas diffusion setup with alkaline environment: how particle size and mesoscopic environment influence the degradation mechanism, **ACS Catalysis**, 2020, 10, 21, 13040-13049
- 59 Zhong Y, Keeratiburana T, **Kirkensgaard JJK**, Khakimov B, Blennow A and Hansen AR, Generation of short-chained granular corn starch by maltogenic  $\alpha$ -amylase and transglucosidase treatment, **Carbohydrate Polymers**, 2021, 251, 117056
- 58 Pedersen MC, Robins V, Mortensen K and **Kirkensgaard JJK\***, Evolution of local motifs and topological proximity in self-assembled quasicrystalline phases, **Proc. Roy. Soc. A.**, 20200170
- 57 Schröder J, Quinson J, **Kirkensgaard JJK**, Alinejad S, Mintsä VA, Jensen KMØ and Arenz M, A new approach to test the degradation of fuel catalysts under realistic conditions: combining tests in a gas diffusion electrode setup with small angle X-ray scattering, **Journal of Electrochemical Society**, 2020, 167, 134515
- 56 Kowalczyk P, Pina-Salazar E, **Kirkensgaard JJK**, Terzyk AP, Futamura R, Hayashi T, Osawa E, Kaneko K and Ciach A, Reconstructing the Fractal Clusters of Detonation Nanodiamonds from Small-Angle X-ray Scattering, **Carbon**, 2020, 169, 349-356
- 55 Borger A, Huang Q, Hassager O, **Kirkensgaard JJK**, Almdal K and Mortensen K, Stretch and orientational mode decoupling in relaxation of highly stretched polymer melts, **Phys. Rev. Research**, 2020, 2, 043119
- 54 Sievers G, Jensen AW, Quinson J, Zana A, Bizzotto, F, Oeszalan M, **Kirkensgaard JJK**, Smitshuysen T, Kadkhodazadeh S, Juelsolt M, Jensen KMØ, Wan H, Schäfer J, Cépe K, Escudero-Escribano M, Rossmeis J, Quade A, Brüser V and Arenz M, Self-supported, three-dimensional Pt-CoOxide networks: Oxygen reduction catalysts combining high specific activity with high dispersion, **Nature Materials**, 2021, 20, 208-213
- 53 Quinson J, Neumann S, Kacenauskaite L, Bucher J, **Kirkensgaard JJK**, Simonsen S, Theil Kuhn, L, Zana A, Vosch T, Oezaslan M, Kunz S and Arenz M, Solvent-dependent growth and stabilization mechanisms of surfactant-free colloidal Pt nanoparticles, **Chemistry - A European Journal**, 2020, 26, 9012-9023
- 52 Arminio-Ravelo JA, Quinson J, Pedersen MA, **Kirkensgaard JJK**, Arenz M and Escudero-Escribano M, Synthesis of iridium nanocatalysts for water oxidation in acid: effect of the surfactant, **ChemCatChem**, 2020, 12, 5, 1282-1287
- 51 Bizzotto F, Quinson J, Zana A, **Kirkensgaard JJK**, Dworzak A, Oezaslan M and Arenz M, Ir nanoparticles with ultrahigh dispersion as oxygen evolution reaction (OER) catalyst: synthesis and activity benchmarking, **Catalysis Science & Technology**, 2019, 9, 6345
- 50 Hain T, Schröder-Turk, G and **Kirkensgaard JJK\***, Patchy particles by self-assembly of star copolymers on a spherical substrate: Thomson solutions in a geometric problem with a color constraint, **Soft Matter**, 2019, 15, 9394, Cover paper
- 49 Jakubauskas D, Kowalewska L, Sokolova A, Garvey C, Mortensen K, Jensen PE and **Kirkensgaard JJK\***, Ultrastructural modeling of small angle scattering from photosynthetic membranes, **Scientific Reports**, 2019, 9:19405
- 48 Sencadas V, Garvey C, Mudie S, **Kirkensgaard JJK**, Gouadec G and Hauser S, Electroactive properties of electrospun silk fibroin for energy harvesting applications, **Nano Energy**, 2019, 66, 104106
- 47 Geng XL, **Kirkensgaard JJK**, Arleth L, Otte J and Ipsen R, The influence of pH, protein concentration and calcium ratio on the formation and structure of nanotubes from partially hydrolyzed bovine  $\alpha$ -lactalbumin, **Soft Matter**, 2019, 15, 4787, Cover paper
- 46 Chernyy S, Mahalik J, Kumar R, **Kirkensgaard JJK**, Arras M, Kim H, Schulte L, Ndoni S, Smith G, Mortensen K, Sumpter B, Russell T and Almdal K, On the Morphological Behavior of ABC Miktoarm Stars Containing Poly(cis 1,4-isoprene), Poly(styrene) and Poly(2-vinylpyridine), **Journal of Polymer Science, Part B: Polymer Physics**, 2019, 56, 22, 1491-1504
- 45 Quinson J, Inaba M, Neumann S, Swane A, Bucher J, Simonsen S, Theil Kuhn L, **Kirkensgaard JJK**, Jensen K, Oezaslan M, Kunz S and Arenz M, Investigating particle size effects in catalysis by applying a size controlled and surfactant-free synthesis of colloidal nanoparticles in alkaline ethylene glycol - the case study of the oxygen reduction reaction on Pt, **ACS Catalysis**, 2018, 8, 6627-6635
- 44 Rose F, Roovers S, Fano M, Harloff-Helleberg S, **Kirkensgaard JJK**, Hejnaes K, Fischer P and Foged C, Temperature-Induced Self-Assembly of the Group B Streptococcus (GBS) Fusion Antigen GBS-NN, **Molecular Pharmaceutics**, 2018, 15 (7), 2584-2593

- 43 Mortensen K, Borger A, **Kirkensgaard JJK**, Garvey CJ, Almdal K, Dorokhin A, Huang Q and Hassager O, Structural studies of three-arm star block copolymers exposed to extreme stretch suggest persistent polymer tube, **Physical Review Letters**, 2018, 120, 207801
- 42 Chernyy S, **Kirkensgaard JJK**, Mahalik J, Kim H, Arras M, Kumar R, Sumpter B, Smith G, Mortensen K, Russell T and Almdal K, Bulk and surface morphologies of ABC miktoarm star terpolymers comprised of PDMS, PI and PMMA arms, **Macromolecules**, 2018, 51(3), 1041-1051
- 41 Su Y, Lenau T, Gundersen E, **Kirkensgaard JJK**, Maibohm C, Pinti J and Ellegaard M, The UV filtering potential of drop-casted layers of frustules of three diatom species, **Scientific Reports**, 2018, 8:959
- 40 Chernyy S, **Kirkensgaard JJK**, Bakke A, Mortensen K and Almdal K, On the properties of poly(isoprene-b-ferrocenylmethyl methacrylate) block copolymers, **Polymer**, 2017, 133, 129-136
- 39 Sagnelli D, Hooshmand K, Kemmer, GC, **Kirkensgaard JJK**, Mortensen K, Giosafatto V, Holse M, Hebelstrup KH, Bao J, Stelte W, Bjerre A and Blennow A, Cross-linked amylose bioplastic: a transgenic-based compostable plastic alternative, **International Journal of Molecular Science**, 2017, 18, 2075
- 38 Sagnelli D, **Kirkensgaard JJK**, Giosafatto V, Ogradowicz N, Kruczal K, Mikkelsen MS, Maigret J, Lourdin D, Mortensen K and Blennow A, All-natural starch-betaglucan composite materials, **Carbohydrate Polymers**, 2017, 172, 237-245
- 37 Goldstein A, Annora G, Vamadevana V, Tetlow I, **Kirkensgaard JJK**, Mortensen K, Blennow A, Hebelstrup KH and Bertoft E, The influence of diurnal photosynthetic activity on the morphology, structure, and thermal properties of normal and waxy barley starch, **International Journal of Biological Macromolecules**, 2017, 98, 188-200
- 36 Kacenauskaite L, Quinson J, Schultz H, **Kirkensgaard JJK**, Kunz S, Vosch T and Arenz M, UV-induced synthesis and stabilization of 'unprotected' colloidal Pt nanoparticles with controlled particle size in ethylene glycol, **ChemNanoMat**, 2017, 3, 2, 89-93
- 35 Chernyy S, Wang Z, **Kirkensgaard JJK**, Bakke A, Mortensen K, Ndoni S and Almdal K, Synthesis and Characterization of Ferrocene Containing Block Copolymers, **Journal of Polymer Science, Part A: Polymer Chemistry**, 2017, 55, 3, 495-503
- 34 Martin-Bertelsen B, Yaghmur A, Franzyk H, **Kirkensgaard JJK\*** and Foged C, Conserved molecular superlattices in a series of homologous synthetic mycobacterial cell-wall lipids forming interdigitated bilayers, **Langmuir**, 2016, 32 (48), 12693-12701
- 32 Sagnelli D, Hebelstrup KH, Leroy E, Chaunier L, Sabate A, Guilois S, **Kirkensgaard JJK**, Mortensen K, Lourdin D and Blennow A, Plant-crafted starches for bioplastics production, **Carbohydrate Polymers**, 2016, 152, 398-408
- 33 **Kirkensgaard JJK\***, Hengeller L, Dorokhin A, Huang Q, Garvey CJ, Almdal K, Hassager O and Mortensen K, Nematic effects and strain coupling in entangled polymer melts under strong flow, **Physical Review E**, 2016, 94, 020502, Rapid Communication
- 31 Larsen AN, Sørensen KK, Johansen NT, Martel A, **Kirkensgaard JJK**, Jensen KJ, Arleth L and Midtgaard SR, Dimeric peptides with three different linkers self-assemble with phospholipids to form peptide nanodiscs that stabilize membrane proteins, **Soft Matter**, 2016, 12, 5937-5949
- 30 Kacenauskaite L, **Kirkensgaard JJK**, Fleige M, Kunz S, Vosch T and Arenz M, Synthesis mechanism and light influence on platinum nanoparticles synthesis at room temperature, **ChemNanoMat**, 2016, 2(2), 104-107, Cover article
- 29 Schrader I, Warneke J, Neumann S, Grotheer S, Swane A, **Kirkensgaard JJK**, Arenz M, Kunz S, Surface Chemistry of "Unprotected" Nanoparticles: A Spectroscopic Investigation on Colloidal Particles, **Journal of Physical Chemistry C**, 2015, 119 (31), 17655-17661
- 28 Spanos I, Dideriksen K, **Kirkensgaard JJK**, and Arenz M, Structural disordering of de-alloyed Pt bimetallic nanocatalysts: The effect on oxygen reduction reaction activity and stability, **Physical Chemistry Chemical Physics**, 2015, 17(42), 28044-28053
- 27 Speder J, Spanos I, Zana A, **Kirkensgaard JJK**, Mortensen K, Altmann, L, Bäumer M and Arenz M, From single crystal model catalysts to systematic studies of supported nanoparticles, **Surface Science**, 2014, 631, 278-284
- 26 Rønholt S, Madsen AS, **Kirkensgaard JJK**, Mortensen K and Knudsen JC, Effect of churning temperature on water content, rheology, microstructure and stability of butter during four weeks of storage, **Food Structure**, 2014, 2, 14-26
- 25 Zana A, Reeler, N, Vosch, T, **Kirkensgaard JJK** and Arenz M, Core-shell TiO<sub>2</sub>@C: towards alternative supports as replacement for high surface area carbon for PEMFC catalysts, **Electrochimica Acta**, 2014, 139, 21-28
- 24 **Kirkensgaard JJK\***, Pedersen MC, Hyde ST, Tiling patterns from ABC star molecules: 3-colored foams?, **Soft Matter**, 2014, 10, 7182-7194, Cover article
- 23 Fischer MG, de Campo L, **Kirkensgaard JJK**, Hyde ST and Schroder-Turk GE, The tricontinuous 3ths(5) phase: A new network morphology in copolymer melts, **Macromolecules**, 2014, 47, 7424-7430

- 22 Speder J, Altman L, Bäumer M, **Kirkensgaard JJK**, Mortensen K and Arenz M, The particle proximity effect: from model to high surface area fuel cell catalysts, **RSC Advances**, 2014, 4, 14971
- 21 Speder J, Zana A, Spanos I, **Kirkensgaard JJK**, Mortensen K, Hanzlik M and Arenz M, Comparative degradation study of carbon supported PEM fuel cell electrocatalysts - the influence of the Pt to carbon ratio on the degradation rate, **Journal of Power Sources**, 2014, 261, 14-22
- 20 **Kirkensgaard JJK\***, Evans ME, de Campo L and Hyde S, Hierarchical self-assembly of a striped gyroid formed by threaded chiral mesoscale networks, **Proceedings of the National Academy of Sciences**, 2014, 111(4), 1271-1276
- 19 Midtgaard SR, Pedersen MC, **Kirkensgaard JJK**, Sørensen KK, Jensen KJ, Mortensen K and Arleth L, Self-Assembling Peptides form Nanodiscs that stabilize Membrane Proteins, **Soft Matter**, 2013, 10, 738-752
- 18 Rønholt S, **Kirkensgaard JJK**, Høyer KF, Mortensen K and Knudsen JC , The effect of capacity, rotational speed and storage on crystallization and rheological properties of puff pastry butter, **Journal of the American Oil Chemists' Society**, 2014, 91,1, 29-38
- 17 Rønholt S, **Kirkensgaard JJK**, Mortensen K and Knudsen JC , Effect of cream cooling rate and water content on butter microstructure during four weeks of storage, **Food Hydrocolloids**, 2014, 34, 169-176
- 16 Spanos I, **Kirkensgaard JJK**, Mortensen K and Arenz M, Investigating the activity enhancement on  $Pt_xCo_{1-x}$  alloys induced by a combined strain and ligand effect, **Journal of Power Sources**, 2014, 245, 908-914
- 15 Buldo P, **Kirkensgaard JJK** and Wiking L, Crystallization mechanisms in cream during ripening and initial butter churning, **Journal of Dairy Science**, 2013, 96 (11), 6782-6791
- 14 Speder J, Zana A, Spanos I, **Kirkensgaard JJK**, Mortensen K and Arenz M, On the influence of the Pt to carbon ratio on the degradation of high surface area carbon supported PEM fuel cell electrocatalysts, **Electrochemistry Communications**, 2013, 34, 153-156
- 13 Kaufmann N, **Kirkensgaard JJK**, Andersen U and Wiking L, Effect of shear on the polymorphic behaviour of milk fat and blends with rapeseed oil detected by pNMR, **Journal of the American Oil Chemists' Society**, 2013, 90 (6), 871-880
- 12 Speder J, Altmann L, Roefzaad M, Baumer M, **Kirkensgaard JJK**, Mortensen K and Arenz M, Pt based PEMFC catalysts prepared from colloidal particle suspensions - a toolbox for model studies, **Physical Chemistry Chemical Physics**, 2013, 15, 3602-3608
- 11 **Kirkensgaard JJK\***, Striped networks and other hierarchical structures in  $A_mB_mC_n$  ( $2m + n$ )-miktoarm star terpolymer melts , **Physical Review E**, 2012, 85, 031802
- 10 Rønholt S, **Kirkensgaard JJK**, Pedersen, TB, Mortensen K and Knudsen JC, Polymorphism, microstructure and rheology of butter: Effects of cream temperature treatment, **Food Chemistry**, 2012, 135, 1730-1739
- 9 **Kirkensgaard JJK\***, Kaleidoscopic tilings, networks and hierarchical structures in blends of 3-miktoarm star terpolymers, **Interface Focus**, 2012, 2 (5), 602-607
- 8 Posselt D, Nagy, G, **Kirkensgaard JJK**, Holm JK, Aagaard TH, Timmins P, Retfalvi E, Rosta L, Kovacs L & Garab G, Small-angle neutron scattering study of the ultrastructure of chloroplast thylakoid membranes - periodicity and structural flexibility of the stroma lamellae, **Biochimica et Biophysica Acta - Bioenergetics**, 2012, 1817(8), 1220-1228
- 7 **Kirkensgaard JJK\***, Systematic progressions of core-shell polygon containing tiling patterns in melts of 2nd generation dendritic miktoarm star copolymers, **Soft Matter**, 2011, 7, 10756
- 6 de Campo L, Varslot T, Moghaddam M, **Kirkensgaard JJK**, Mortensen K, Hyde S , A Novel Lyotropic Liquid Crystal Formed by Triphilic Polyphiles: Hydrophilic/Oleophilic/Fluorophilic Rods Arranged in a [12.6.4] tiling, **Physical Chemistry Chemical Physics**, 2011, 13, 3139
- 5 **Kirkensgaard JJK\***, Fragouli P, Hadjichristidis N and Mortensen K, Perforated lamellae morphology in novel  $P2VP(PDMS-b-PI-b-PS)_2$  3-miktoarm star quarterpolymer from Rheo-SANS and Dissipative Particle Dynamics, **Macromolecules**, 2011, 44 (3), 575
- 4 Lefmann K, Filges U, Treue F, **Kirkensgaard JJK**, Plesner B, Hansen K, Klenoe K, Optimal shape of a cold-neutron triple-axis spectrometer, **Nuclear Instruments and Methods A**, 2011, 634, S1-S6
- 3 **Kirkensgaard JJK\***, Novel network morphologies and compositionally robust 3-colored perforated lamellar phase in  $A(BC)_2$  mikto-arm star copolymer melts, **Soft Matter**, 2010, 6, 6102
- 2 **Kirkensgaard JJK\***, Holm JK, Larsen JK, Posselt D, Simulation of small-angle x-ray scattering from thylakoid membranes, **Journal of Applied Crystallography**, 2009, 42, 649
- 1 **Kirkensgaard JJK\***, Hyde ST, Beyond amphiphiles: Coarse-grained simulations of star-polyphile liquid crystalline assemblies, **Physical Chemistry Chemical Physics**, 2009, 11, 2016-2022

## Book chapters

**Kirkensgaard JJK\***,

Topologically complex morphologies in block copolymer melts  
2018, Invited book chapter in 'Role of Topology in Materials', Springer series on Solid State Sciences

## Other publications

**Kirkensgaard JJK\***,

Strukturel kompleksitet i bløde materialer  
Kvant - tidskrift for fysik og astronomi, 1, 2018

**Kirkensgaard JJK\***,

Novel morphologies in star-shaped polyphilic molecules and mikto-arm copolymers  
2010, PhD Thesis, University of Copenhagen, Denmark

**Kirkensgaard JJK\***,

Light-Induced Structural Flexibility of Thylakoid Membranes: A Small-Angle Scattering and Simulations Study,  
2005, Master Thesis, IMFUFA, Roskilde University, Denmark

**Kirkensgaard JJK**, Hansen KS, Christensen BP, Willendrup P, Lefmann K

Optimization of the RITA-2 spectrometer at PSI using McStas Simulations  
2004, Technical report, Risø National Laboratory, Denmark