Martin Cramer Pedersen

List of peer-reviewed publications

- **Modeling of flexible biophysical complexes in solution small-angle scattering**
  Barclay, Arleth, & Pedersen
  In preparation
- **Hyperbolic forests and phase transitions in molecular simulations of confined polymers**
  Pedersen, Dahl, Hyde, & Kirkensgaard
  In preparation

2021 **An integrated model of the flexible domains in spinach aquaporin SoPIP2;1**
Pedersen, Johansen, Roche, Järvå, Törnroth-Horsefield, & Arleth
PLOS Comput. Biol., In review

2021 **Global fitting of multiple data frames from SEC-SAXS to investigate the structure of next-generation nanodiscs**
Barclay, Johansen, Tidemand, Arleth, & Pedersen
Acta Crystallogr. Sect. D Biol. Crystallogr., In review

2021 **The intrinsic group-subgroup structures of the Diamond and Gyroid minimal surfaces in their conventional unit cells**
Pedersen, Robins, & Hyde
Acta Crystallogr. Sect. A, In review

2021 **Decorations of periodic minimal surfaces in their universal cover**
Pedersen, Hyde, Ramsden, & Kirkensgaard
Proc. Natl. Acad. Sci. U. S. A., In review

2021 **Non-ionic detergent facilitates formation of supercharged nanodiscs and the insertion of membrane protein**
Tidemand, Blemmer, Johansen, Arleth, & Pedersen
Biochim. Biophys. Acta Biomembr., In review

2021 **Mg^{2+}-dependent conformational equilibria in CorA: an integrated view on transport regulation**
Johansen, Bonaccorsi, Bengtsen, Larsen, Tidemand, Pedersen, Huda, Berndtsson, Darwish, Yepuri, Martel, Pomorski, Bertarello, Sansom, Rapp, Crehuet, Schubeis, Lindorff-Larsen, Pintacuda, & Arleth
eLife, In review

2021 **Experimental errors in small-angle scattering can be assessed using Bayesian indirect Fourier transformation**
Larsen & Pedersen**
J. Appl. Crystallogr. 54(5), 1281-1289
*Equally contributing authors

2021 **Order and disorder - an integrative structure of the full-length human growth hormone receptor**
Kassem, Araya-Secchi, Bugge, Barclay, Steinocher, Khondker, Wang, Lenard, Bürck, Sahin, Ulrich, Landreh, Pedersen, Rheinstädter, Pedersen, Lindorff-Larsen, Arleth, & Kragelund
Sci. Adv. 7, eabh3805

2021 **Structure and biophysical properties of supercharged and circularized nanodiscs**
Johansen, Luchini, Tidemand, Orioli, Martel, Porcar, Arleth, & Pedersen
Langmuir 37(22), 6681-6690

2020 **Schwarzite nets: a wealth of 3-valent examples sharing similar topologies and symmetries**
Hyde & Pedersen**
Proc. Roy. Soc. A 477, 20200372
*Equally contributing authors

2020 **Aescin - a natural soap for the formation of lipid nanodiscs with tunable size**
Geisler, Pedersen, Preisig, Hannappel, Prévost, Dattani, Arleth, & Hellweg
Soft Matter 17, 1888–1900

2020 **Evolution of local motifs and topological proximity in self-assembled quasicrystalline phases**
Pedersen, Robins, Mortensen, & Kirkensgaard
Proc. Roy. Soc. A 476, 20200170

2019 **Aescin-Induced Conversion of Gel-Phase Lipid Membranes into Bicelle-Like Lipid Nanoparticles**
Geisler, Pedersen, Hannappel, Schweins, Prévost, Dattani, Arleth, & Hellweg
Langmuir 35(49), 16244–16255

2019 **PSX: Protein-Solvent Exchange - Software for calculation of deuterium-exchange effects in SANS measurements from protein coordinates**
Pedersen, Wang, Tidemand, Martel, Lindorff-Larsen, & Arleth
J. Appl. Crystallogr. 52, 1427–1436

2019 **Circularized and solubility-enhanced MSPs facilitate simple and high yield production of stable nanodiscs for studies of membrane proteins in solution**
Johansen, Tidemand, Nguyen, Rand, Pedersen, & Arleth
FEBS J. 286(9), 1734–1751

2018 **Introducing SEC-SANS for studies of complex self-organised biological systems**
Johansen, Pedersen, Martel, Porcar, & Arleth
Acta Crystallogr. Sect. D Biol. Crystallogr. 74(12), 1178–1191

2018 **Polyhedra and packings from hyperbolic honeycombs**
Pedersen & Hyde
Proc. Natl. Acad. Sci. U. S. A. 115(27), 6905–6910

2018 **Surface embeddings of the Klein and the Möbius-Kantor graphs**
Pedersen, Delgado-Friedrichs, & Hyde
Acta Crystallogr. Sect. A 74(3), 223–232

2017 **Invisible detergents for structure determination of membrane proteins by small-angle neutron scattering**
Midtgaard, Darwish, Pedersen, Huda, Larsen, Jensen, Kynde, Skar-Gislinge, Nielsen, Olesen, Blaise, Dorosz, Thorsen, Venskutonyté, Krintel, Møller, Frielinghaus, Gilbert, Martel, Kastrup, Jensen, Nissen, & Arleth
FEBS J. 285(2), 357–371

2016 **Hyperbolic crystallography of two-periodic surfaces and associated structures**
Pedersen & Hyde
Acta Crystallogr. Sect. A 73(2), 124–134

2015 **Structure and crystallinity in water dispersible photoactive nanoparticles for organic solar cells**
Pedersen, Pedersen, Simonsen, Brandt, Böttiger, Andersen, Wu, Zhiyuan, Krebs, Arleth, & Andresen
J. Mater. Chem. A 3, 17022-17031

2015 **Small-Angle X-Ray Scattering of the Cholesterol Incorporation into Human ApoA1-POPC Discoidal Particles**
Midtgaard, Pedersen, & Arleth
Biophys. J. 109(2), 308-318

2015 **PET/CT Based In Vivo Evaluation of ^{64}Cu Labelled Nanodiscs in Tumor Bearing Mice**
Huda, Binderup, Pedersen, Midtgaard, Elema, Kjær, Jensen, & Arleth
PLOS ONE 10(7), e0129310

2014 **Quantification of the information in small-angle scattering data**
Pedersen, Hansen, Markussen, Arleth, & Mortensen
J. Appl. Crystallogr. 47(6), 2000-2010

2014 **Tiling patterns from ABC star molecules: 3-colored foams?**
Kirkensgaard, Pedersen, & Hyde
Soft Matter 10, 7182-7194

2014 **Small-angle scattering gives direct structural information about membrane protein inside lipid environment**
Kynde, Skar-Gislinge, Pedersen, Midtgaard, Simonsen, Schweins, Mortensen, & Arleth
Acta Crystallogr. Sect. D Biol. Crystallogr. 70(2), 371-383

2014 **Self-assembling peptides form nanodiscs that stabilize membrane proteins**
Midtgaard, Pedersen, Kirkensgaard, Sørensen, Mortensen, Jensen, & Arleth
Soft Matter 10, 738-752

2013 **WillItFit - A Framework for Fitting of Constrained Models to Small-angle Scattering Data**
Pedersen, Arleth, & Mortensen
J. Appl. Crystallogr. 46(6), 1894-1898