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Postdoc  
Biostructural Research  
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## Qualifications

Physical Chemistry, PhD, Lund University  
Physics, MSc, University of Fribourg  
Physics/Mathematics, BSc, University of Fribourg

## Employment

### Postdoc

Biostructural Research  
København Ø, Denmark  
15 May 2016 → 14 May 2019

### Postdoc

Biostructural Research  
København Ø, Denmark  
15 May 2016 → 14 May 2019

### PhD student

Lund University, Department of Chemistry, Division of Physical Chemistry  
Lund, Sweden  
1 Jul 2011 → 13 Dec 2015

## Publications

### Effects of oxidation on the physicochemical properties of polyunsaturated lipid membranes

Parra, E., Browning, K., Damgaard, L. S. E., Nordström, R., Micciulla, S., Bucciarelli, S. & Malmsten, M., 7 Mar 2019, In : Journal of Colloid and Interface Science. p. 404-419 15 p., 538.

### Microfluidics-based self-assembly of peptide-loaded microgels: Effect of three dimensional (3D) printed micromixer design

Borro, B. C., Bohr, A., Bucciarelli, S., Boetker, J. P., Foged, C., Rantanen, J. & Malmsten, M., 4 Dec 2018, In : Journal of Colloid and Interface Science. 538, p. 559-568 10 p.

### Size-exclusion chromatography small-angle X-ray scattering of water soluble proteins on a laboratory instrument

Bucciarelli, S., Midtgaard, S. R., Pedersen, M. N., Skou, S., Arleth, L. & Vestergaard, B., 2018, In : Journal of Applied Crystallography. 51, 6, p. 1623-1632 11 p.

### Dramatic influence of patchy attractions on short-time protein diffusion under crowded conditions

Bucciarelli, S., Myung, J. S., Farago, B., Das, S., Vliegthart, G. A., Holderer, O., Winkler, R. G., Schurtenberger, P., Gompper, G. & Stradner, A., 7 Dec 2016, In : Science Advances. 2, 8 p., e1601432.

### High-mobility group protein B1 (HMGB1) binds to the rs7903146 locus in the T-cell factor 7-like 2 (TCF7L2) gene in human pancreatic islets

Zhou, Y., Oskolkov, N., Shcherbina, L., Ratti, J., Kock, K-H., Su, J., Martin, B., Zackrisson Oskolkova, M., Göransson, O., Bacon, J., Li, W., Bucciarelli, S., Cilio, C., Brazma, A., Thatcher, B., Rung, J., Wierup, N., Renström, E., Groop, L. & Hansson, O., 15 Jul 2016, In : Molecular and Cellular Endocrinology. 430, p. 138-145

### **Extended law of corresponding states applied to buffer isotope effect on a globular protein**

Bucciarelli, S., Mahmoudi, N., Casal-Dujat, L., Jéhannin, M., Jud, C. & Stradner, A., 14 Apr 2016, In : Journal of Physical Chemistry Letters. 7, p. 1610-1615

### **How scattering helps to gain a better understanding of presbyopia**

Bucciarelli, S., Casal-Dujat, L., Farago, B., Schurtenberger, P. & Stradner, A., 2016.

### **Unusual Dynamics of Concentration Fluctuations in Solutions of Weakly Attractive Globular Proteins**

Bucciarelli, S., Casal-Dujat, L., De Michele, C., Sciortino, F., Dhont, J., Bergenholtz, J., Farago, B., Schurtenberger, P. & Stradner, A., 27 Oct 2015, In : Journal of Physical Chemistry Letters. 6, p. 4470-4474

### **Dynamical arrest in concentrated eye lens protein solutions and its effect on vision**

Bucciarelli, S., Casal-Dujat, L., Farago, B., Schurtenberger, P. & Stradner, A., 2015.

### **Hard sphere-like glass transition in eye lens $\alpha$ -crystallin solutions**

Foffi, G., Savin, G., Bucciarelli, S., Dorsaz, N., Thurston, G. M., Stradner, A. & Schurtenberger, P., 25 Nov 2014, In : Proceedings of the National Academy of Sciences USA (PNAS). p. 16748-16753

### **Cluster-Driven Dynamical Arrest in Concentrated Lysozyme Solutions**

Cardinaux, F., Zaccarelli, E., Stradner, A., Bucciarelli, S., Farago, B., Egelhaaf, S. U., Sciortino, F. & Schurtenberger, P., 29 Apr 2011, In : The Journal of Physical Chemistry Part B. 115, p. 7227-7237

## **Activities**

### **How do attractions and crowding affect protein solution dynamics?**

Saskia Bucciarelli (Speaker)

26 May 2016

### **How X-rays, light and neutrons help to understand presbyopia**

Saskia Bucciarelli (Speaker)

8 Sep 2015

### **Presbyopia - caused by dynamical arrest of the concentrated protein mixture in the eye lens cells?**

Saskia Bucciarelli (Speaker)

15 May 2014

### **Neutron spin echo experiments reveal different arrest scenarios in concentrated eye lens protein solutions**

Saskia Bucciarelli (Speaker)

23 Apr 2014

### **2nd Research on Vertebrate Vision in Lund**

Saskia Bucciarelli (Organizer)

2014 → ...

### **Disentangling critical slowing down and dynamical arrest in lens protein solutions**

Saskia Bucciarelli (Speaker)

8 Sep 2012

### **Competition between critical phenomena and dynamical arrest in concentrated eye lens protein solutions**

Saskia Bucciarelli (Speaker)

29 May 2012