Publications:

QMC approach based on the Bogoliubov independent quark model of the nucleon
Publication: Research - peer-review › Journal article – Annual report year: 2016

Analysis of Drug Design for a Selection of G Protein-Coupled Neuro-Receptors Using Neural Network Techniques
Publication: Research - peer-review › Journal article – Annual report year: 2015

Spin polarization versus color–flavor locking in high-density quark matter
Publication: Research - peer-review › Journal article – Annual report year: 2015

Spontaneous magnetization in high-density quark matter
Tsue, Y., da Providência, J., Providência, C., Yamamura, M. & Bohr, H. 2015 In : Progress of Theoretical and Experimental Physics. 2015, 10, 103D01
Publication: Research - peer-review › Journal article – Annual report year: 2015

The Higgs mass derived from the U(3) Lie group
Publication: Research - peer-review › Journal article – Annual report year: 2015

Quantum Mechanical Studies of DNA and LNA
Publication: Research - peer-review › Journal article – Annual report year: 2014

Coherence, energy and charge transfers in de-excitation pathways of electronic excited state of biomolecules in photosynthesis
Publication: Research - peer-review › Journal article – Annual report year: 2013

Interplay between spin polarization and color superconductivity in high density quark matter
Publication: Research - peer-review › Journal article – Annual report year: 2013

On superconductivity of matter at hight density and the effects of inducing nuclear chirality in molecular structures
da Providência, J., Jalkanen, K. J. & Bohr, H. 2013 In : Current Physical Chemistry. 3, 1, p. 77-82
Publication: Research - peer-review › Journal article – Annual report year: 2013

Spin polarization in high density quark matter.
Publication: Research - peer-review › Journal article – Annual report year: 2013
Surface enhanced raman scattering on tardigrada - Towards monitoring and imaging molecular structures in live cryptobiotic organisms
Publication: Research - peer-review › Journal article – Annual report year: 2013

BCS Theory of Hadronic Matter at High Densities
Publication: Research - peer-review › Journal article – Annual report year: 2012

Hydrgels for in situ encapsulation of biomimetic membrane arrays
Publication: Research - peer-review › Journal article – Annual report year: 2012

Magnetization of High Density Hadronic Fluid
Publication: Research - peer-review › Journal article – Annual report year: 2012

Structure–Activity Relationship Study of Selective Excitatory Amino Acid Transporter Subtype 1 (EAAT1) Inhibitor 2-Amino-4-(4-methoxyphenyl)-7-(naphthalen-1-yl)-5-oxo-5,6,7,8-tetrahydro-4H-chromene-3-carbonitrile (UCPH-101) and Absolute Configurational Assignment Using Infrared and Vibrational Circular Dichroism Spectroscopy in Combination with ab Initio Hartree–Fock Calculations
Publication: Research - peer-review › Journal article – Annual report year: 2012

Tailoring Properties of Biocompatible PEG-DMA Hydrogels with UV Light
Publication: Research - peer-review › Journal article – Annual report year: 2012

A schematic model for energy and charge transfer in the chlorophyll complex
Bohr, H. & Malik, F. B. 2011 In : Theoretical Chemistry Accounts. 130, 4-6, p. 1203-1210
Publication: Research - peer-review › Journal article – Annual report year: 2011

Overview of the use of theory to understand infrared and Raman spectra and images of biomolecules: colorectal cancer as an example
Piva, J. A. A. C., Silva, J. L. R., Raniero, L., Martin, A. A., Bohr, H. & Jalkanen, K. J. 2011 In : Theoretical Chemistry Accounts. 130, 4-6, p. 1261-1273
Publication: Research - peer-review › Journal article – Annual report year: 2011

Color symmetrical superconductivity in a schematic nuclear quark model
Publication: Research - peer-review › Journal article – Annual report year: 2010

Current functional theory for multi-electron configuration
Bang, J. N. & Bohr, H. 2010 In : Theoretical Chemistry Accounts. 125, 3-6, p. 555-568
Publication: Research - peer-review › Journal article – Annual report year: 2010

Encapsulation of multiple black lipid membranes
Ibragimova, S., Jensen, K. B. S., Szewczykowski, P. P., Perry, M., Helix Nielsen, C. & Bohr, H. 2010
Publication: Research › Poster – Annual report year: 2010

Hydration shells exchange charge with their protein
Correlative Tools for Measuring External Influences on Protein Folding-Denaturation Using Various Spectroscopic Methods
Publication: Research - peer-review › Book chapter – Annual report year: 2007

Detection of initiation sites in protein folding of the four helix bundle ACBP by chemical shift analysis
Publication: Research - peer-review › Journal article – Annual report year: 2007

Evidence of Auger-like transitions in the repair stage of ultra-violet mutated DNA
Publication: Research - peer-review › Journal article – Annual report year: 2007

Structural characterization of chiral molecules using vibrational circular dichroism spectroscopy
Publication: Research › Ph.D. thesis – Annual report year: 2006

Gaussion integral based representation of protein structure for predicting fold-class from sequence
Nielsen, B. G., Røgen, P. & Bohr, H. 2006 In : Mathematical and computer modelling. 43, p. 401-412
Publication: Research - peer-review › Journal article – Annual report year: 2006

Nuclear Magnetic Resonance: Chemical Shift investigation of Protein Folding
Jürgensen, V. W. & Bohr, H. 2006
Publication: Research › Ph.D. thesis – Annual report year: 2006

Spectroscopic studies of small biomolecules in condensed phases
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Surface-Enhanced Raman Scattering: Physics and Applications
Publication: Research - peer-review › Book chapter – Annual report year: 2006

The Role of Interfacial Tryptophan Residues in Hydrophobic Coupling
Helix Nielsen, C., Petersen, F. N. R., Jensen, M. Ø. & Bohr, H. 2006
Publication: Research - peer-review › Poster – Annual report year: 2006

Analytical tools for solitons and periodic waves corresponding to phonons on Lennard-Jones lattices in helical proteins
Publication: Research - peer-review › Journal article – Annual report year: 2005

Electronic pathways in photoactivated repair of UV mutated DNA
Publication: Research - peer-review › Journal article – Annual report year: 2005

Fiber ring laser with a feedback mirror
Publication: Research - peer-review › Journal article – Annual report year: 2005

Nuclear phenomena derived from quark-gluon strings
Polymer density functional approach to efficient evaluation of path integrals

Conformational determination of [Leu]enkephalin based on theoretical and experimental VA and VCD spectral analyses

Exploring membranes and membrane proteins with voltage-clamp correlated Raman spectroscopy

Exploring Membranes and Membrane Proteins with Voltage-Clamp Correlated Raman Spectroscopy

Fold-class prediction -- Using a Gauss-integral based representation of protein structure
Nielsen, B. G., Røgen, P. & Bohr, H. 2004

Single Molecule Raman Detection of Enkephalin on Silver Colloidal Particles

A new family of global protein shape descriptors

Energy levels and quantum states of [Leu]enkephalin conformations based on theoretical and experimental investigations

Enkephalins: Raman spectral analysis and comparison as function of pH 1-13
Abdali, S., Refstrup, P., Nielsen, O. F. & Bohr, H. 2003 In : Biopolymers. 72, 5, p. 318-328

The probability distribution of side-chain conformations in [Leu] and [Met]enkephalin determines the potency and selectivity to mu and delta opiate receptors

The side-chain conformation distribution of enkephalin affects its selectivity for mu and delta opiate receptors
Nielsen, B. G., Jensen, M. Ø. & Bohr, H. 2003

Vibrational absorption spectra, DFT and SCC-DFTB conformational study and analysis of [Leu]enkephalin
On representation of protein backbones with (framed) space curves
Publication: Research › Report – Annual report year: 2002

The VA and VCD spectra of various isotopomers of L-alanine in aqueous solution
Publication: Research - peer-review › Journal article – Annual report year: 2002

Threshold disorder as a source of diverse and complex behavior in random nets
Publication: Research - peer-review › Journal article – Annual report year: 2002

Applications of neural network prediction of conformational states for small peptides from spectra and of fold classes
Publication: Research - peer-review › Conference article – Annual report year: 2002

A comparison of aqueous solvent models used in the calculation of the Raman and ROA spectra of L-alanine
Publication: Research - peer-review › Journal article – Annual report year: 2001

Neural-network analysis of the vibrational spectra of N-acetyl L-alanyl N'-methyl amide conformational states
Publication: Research - peer-review › Journal article – Annual report year: 2001

Protein secondary structure: category assignment and predictability
Andersen, C. A., Bohr, H. & Brunak, S. 2001 In : F E B S Letters. 507, 1, p. 6-10
Publication: Research - peer-review › Journal article – Annual report year: 2001

Foam Control by a gas driven acoustic wave generator
Bohr, H. & Kristoffersen, P. 2000
Publication: Research › Patent – Annual report year: 2000

Microwave-enhanced folding and denaturation of globular proteins
Publication: Research - peer-review › Journal article – Annual report year: 2000

Prediction of protein secondary structure at 80% accuracy
Publication: Research - peer-review › Journal article – Annual report year: 2000

Structures, vibrational absorption and vibrational circular dichroism spectra of L-alanine in aqueous solution: a density functional theory and RHF study
Publication: Research - peer-review › Journal article – Annual report year: 2000

The intrinsic dynamic of proteins and the prion disease
Bohr, H. 2000 In : Mathematical and Computer Modelling. 31, 4-5, p. 1-9
Publication: Research - peer-review › Journal article – Annual report year: 2000
A comparative study of MP2, B3LYP, RHF and SCC-DFTB force fields in predicting the vibrational spectra of N-acetyl-L-alanine-N'-methyl amide: VA and VCD spectra
Publication: Research - peer-review › Journal article – Annual report year: 1999

The topology of protein folding
Publication: Research - peer-review › Article in proceedings – Annual report year: 1999

Wild dreams in Physics at the end of the millennium
Bohr, H. & Nielsen, H. B. 1999
Publication: Research - peer-review › Book – Annual report year: 1999

Density functional calculation of the electronic structure for peptide-ligand interactions
(Condensed Matter Theories, Vol. 13).
Publication: Research - peer-review › Article in proceedings – Annual report year: 1999

Microwave Enhanced Kinetics observed in ORD studies of a Protein
Publication: Research - peer-review › Journal article – Annual report year: 1998

Neural Network prediction of protein structure
Publication: Research - peer-review › Book – Annual report year: 1998

Neural Networks for protein Structure Prediction
Bohr, H. 1998 Scientific Applications of Neural Networks. Springer
Publication: Research - peer-review › Article in proceedings – Annual report year: 1998

Prediction of protein hydration sites from sequence by modular neural networks
Ehrlich, L., Reczko, M., Bohr, H. & Wade, R. C. 1998 In : Protein Engineering. 11, 1, p. 11-19
Publication: Research - peer-review › Journal article – Annual report year: 1998

An update of the DEF database of protein fold class predictions
Reczko, M., Karras, D. & Bohr, H. 1997 In : Nucleic Acids Research. 25, 1, p. 235
Publication: Research - peer-review › Journal article – Annual report year: 1997

Coherent topological phenomena in protein folding
Publication: Research - peer-review › Journal article – Annual report year: 1997

Density functional and neural network analysis: Hydration effects and spectroscopic and structural correlations in small peptides and amino acids
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

Density functional calculation of the electronic structure for peptide-ligand interactions
Publication: Research - peer-review › Article in proceedings – Annual report year: 1997

Hierarchical organization in aggregates of protein molecules
Publication: Research - peer-review › Conference article – Annual report year: 1997
Molecular Wring Resonances in Chain Molecules
Publication: Research - peer-review › Journal article – Annual report year: 1997

Packing of protein structures in clusters with magic numbers
Publication: Research - peer-review › Conference article – Annual report year: 1997

Protein distance constraints predicted by neural networks and probability density functions
Publication: Research - peer-review › Journal article – Annual report year: 1997

Protein folding and wring resonances
Bohr, J., Bohr, H. & Brunak, S. 1997 In : Biophysical Chemistry. 63, p. 97-105
Publication: Research - peer-review › Journal article – Annual report year: 1997

The implication of topology for protein structure and aggregation
Publication: Research - peer-review › Journal article – Annual report year: 1997

Towards a systematic classification of protein folds
Publication: Research - peer-review › Journal article – Annual report year: 1997

Distance distributions in proteins: a six parameter representation
Reese, M. G., Lund, O., Bohr, J., Bohr, H., Hansen, J. & Brunak, S. 1996 In : Protein Engineering. 9, 9, p. 733-740
Publication: Research - peer-review › Journal article – Annual report year: 1996

Lecture Notes on Biophysics, 7th college
Publication: Research - peer-review › Book – Annual report year: 1996

Magic Numbers in Protein Structures
Publication: Research - peer-review › Journal article – Annual report year: 1996

The Formation of Protein Structure
Bohr, J., Bohr, H. & Brunak, S. 1996 In : Europhysics News. 27, p. 50-54
Publication: Research - peer-review › Journal article – Annual report year: 1996

How many protein fold classes are to be found?
Publication: Research - peer-review › Book chapter – Annual report year: 1995

Patterns of Protein Conformations
Publication: Research - peer-review › Book chapter – Annual report year: 1995

Resonator Driven Protein Folding: The Implication of Topology for Protein Structure and Folding
Supporting and stabilizing biomimetic membranes
Ibragimova, S., Bohr, H., Hélix-Nielsen, C., Berg-Sørensen, K., Höök, F. & Klösgen, B.
01/06/2008 → 28/09/2011
Project: PhD

Quantum Mechanical Calculations on Metalloproteins
Greisen, P. J., Bohr, H., Henriksen, N. E., Mulholland, A. J. & Olsen, J. M. B.
Project: PhD

Spectroscopic Studies of Cytochrome P450 Enzymes by Application of Optical Spectroscopic Techniques Combined with QM/MM Calculations
Johannessen, C., Bohr, H., Abdali, S., Rottwitt, K., Blanch, E. W. & Ramanujam, P.
01/02/2004 → 01/08/2007
Project: PhD

A protein-system investigated by NMR/ESR
Jürgensen, V. W., Bohr, H., Poulsen, F., Christensen, H. E. M., Hemmingsen, L. B. S. & Redfield, C.
01/12/2001 → 18/04/2006
Project: PhD

Adaptive Signal Processing
Lerchner, A., Bothe, H., Hertz, J., Bohr, H., Gerstner, W. & Lautrup, B.
01/09/2000 → 23/08/2004
Project: PhD

Geometric knot theory with applications to proteins
Røgen, P. & Bohr, H.
01/09/1999 → 31/08/2001
Project

Tidsopløst protein genfoldning
Bohr, H.
01/12/1997 → ...
Project

Dynamics of Product Formation in Myeloperoxidase-H2O2 Chloride System
Bohr, H., Kirkor, E. S. & Scheeline, A.
01/01/1997 → ...
Project

Proteiner's foldning og funktion
Frimand, K. & Bohr, H.
01/01/1997 → 01/08/2002
Project: PhD

Biomolekylers fysiske struktur og evolution
Tøstesen, E., Bohr, J., Bohr, H. & Cotterill, R. M. J.
01/08/1996 → 23/03/2000
Project: PhD

Molekylær biofysik
Bohr, J. & Bohr, H.
01/01/1995 → ...
Project
Molekylær bioinformatik
Bohr, J. & Bohr, H.
01/01/1995 → …
Project

Biological Sequence Analysis
01/09/1993 → 31/12/1997
Project