

HOT PAPERS IN VCD/ROA

FALL 2020



Vibrational circular dichroism towards asymmetric catalysis: chiral induction in substrates coordinated with copper(II) ions

By Sato, Hisako; Takimoto, Kazuyoshi; Yoshida, Jun; Yamagishi, Akihiko

From Physical Chemistry Chemical Physics (2020), Ahead of Print.

Language: English, Database: CAPLUS,

DOI:10.1039/d0cp04827e

[CLICK HERE](#)

Strategy for the vibrational circular dichroism study of a glycosylflavonoid evaluated as its peracetate. The case of bioactive 7-O-b-D-glucopyranosylchrysin

By Quevedo-Tinoco, Lirenny; Rodriguez-Garcia, Gabriela; del Rio, Rosa E.;

Talero, Elena; Motilva, Virginia; Cerda-Garcia-Rojas, Carlos M.; Joseph-Nathan, Pedro; Gomez-Hurtado, Mario A.

From Journal of Molecular Structure (2021), 1225, 129147.

Language: English, Database: CAPLUS,

DOI:10.1016/j.molstruc.2020.129147

[CLICK HERE](#)

Simultaneous Control of Central and Helical Chiralities: Expedient Helicoselective Synthesis of Dioxo[6]helicenes

By Liu, Peng; Bao, Xiaoze; Naubron, Jean-Valere; Chentouf, Sara; Humbel, Stephane; Vanthuyne, Nicolas; Jean, Marion; Giordano, Laurent; Rodriguez, Jean; Bonne, Damien

From Journal of the American Chemical Society (2020), 142(38), 16199-16204.

Language: English, Database: CAPLUS,

DOI:10.1021/jacs.0c07995

[CLICK HERE](#)

Diastereomeric stilbenoid glucoside dimers from the rhizomes of *Gnetum africanum*

By Gabaston, Julien; Buffeteau, Thierry; Brotin, Thierry; Bisson, Jonathan; Rouger, Caroline; Merillon, Jean-Michel; Waffo-Teguo, Pierre
From *Phytochemistry Letters* (2020), 39, 151-156.

Language: English, Database: CAPLUS,
DOI:10.1016/j.phytol.2020.08.004

[CLICK HERE](#)

Recent Advances in the Application of Vibrational Circular Dichroism Spectroscopy for the Characterization of Asymmetric Catalysts

By Merten, Christian

From *European Journal of Organic Chemistry* (2020), 2020(37), 5892-5900.

Language: English, Database: CAPLUS,
DOI:10.1002/ejoc.202000876

[CLICK HERE](#)

Vibrational circular dichroism behavior of quinol alkaloids from *Psacalium aff. sinuatum*

By del Rio, Rosa E.; Pardo-Novoa, Julio C.; Cerda-Garcia-Rojas, Carlos M.; Joseph-Nathan, Pedro

From *Journal of Molecular Structure* (2021), 1224, 128987.

Language: English, Database: CAPLUS,
DOI:10.1016/j.molstruc.2020.128987

[CLICK HERE](#)

Absolute Configuration and Conformation of (-)-R-t-Butylphenylphosphinoamidate: Chiroptical Spectroscopy and X-ray Analysis

By Petrovic, Ana G.; Polavarapu, Prasad L.; Lopusinski, Andrzej; Krasowska, Dorota; Wieczorek, Wanda; Szyrej, Malgorzata; Blaszczyk, Jaroslaw; Drabowicz, Jozef

From *Journal of Organic Chemistry* (2020), Ahead of Print.

Language: English, Database: CAPLUS,
DOI:10.1021/acs.joc.0c00756

[CLICK HERE](#)

Formation of peptide-based oligomers in dimethylsulfoxide: identifying the precursor of fibril formation

By Levine, Matthew S.; Ghosh, Moumita; Hesser, Morgan; Hennessy, Nathan; DiGuseppi, David M.; Adler-Abramovich, Lihi; Schweitzer-Stenner, Reinhard
From Soft Matter (2020), 16(33), 7860-7868.

Language: English, Database: CAPLUS,
DOI:10.1039/d0sm00035c

[CLICK HERE](#)

A combined Raman optical activity and vibrational circular dichroism study on artemisinin-type products

By Bogaerts, Jonathan; Desmet, Filip; Aerts, Roy; Bultinck, Patrick; Herrebout, Wouter; Johannessen, Christian

From Physical Chemistry Chemical Physics (2020), 22(32), 18014-18024.

Language: English, Database: CAPLUS,
DOI:10.1039/d0cp03257c

[CLICK HERE](#)

Vibrational circular dichroism spectroscopy for probing the expression of chirality in mechanically planar chiral rotaxanes

By Koenis, Mark A. J.; Chibueze, C. S.; Jinks, M. A.; Nicu, Valentin P.; Visscher, Lucas; Goldup, S. M.; Buma, Wybren J.

From Chemical Science (2020), 11(32), 8469-8475.

Language: English, Database: CAPLUS,
DOI:10.1039/d0sc02485f

[CLICK HERE](#)

Determination of the Absolute Configurations of Chiral Alkanes - An Analysis of the Available Tools

By Saito, Fumito; Schreiner, Peter R.

From European Journal of Organic Chemistry (2020), Ahead of Print.

Language: English, Database: CAPLUS,
DOI:10.1002/ejoc.202000711

[CLICK HERE](#)

Cluster-Weighting in Bulk Phase Vibrational Circular Dichroism

By Blasius, Jan; Kirchner, Barbara

From Journal of Physical Chemistry B (2020), 124(33), 7272-7283.

Language: English, Database: CAPLUS,

DOI:10.1021/acs.jpcc.0c06313

[CLICK HERE](#)

Near perfect head-to-head selectivity on the supramolecular photocyclodimerisation of 2-anthracenecarboxylate with self-organised gemini surfactant bilayers

By Yospanya, Wijk; Nishijima, Masaki; Araki, Yasuyuki; Buffeteau, Thierry; Pouget, Emilie; Wada, Takehiko; Oda, Reiko

From Chemical Communications (Cambridge, United Kingdom) (2020), 56(69), 10058-10061.

Language: English, Database: CAPLUS,

DOI:10.1039/d0cc04198j

[CLICK HERE](#)

Chiral lanthanide complexes with l- and d-alanine: an X-ray and vibrational circular dichroism study

By Lyczko, Krzysztof; Rode, Joanna E.; Dobrowolski, Jan Cz.

From Molecules (2020), 25(12), 2729.

Language: English, Database: CAPLUS,

DOI:10.3390/molecules25122729

[CLICK HERE](#)

Solvation and the secondary structure of a proline-containing dipeptide: Insights from VCD spectroscopy

By Vermeyen, Tom; Merten, Christian

From Physical Chemistry Chemical Physics (2020), 22(27), 15640-15648.

Language: English, Database: CAPLUS,

DOI:10.1039/d0cp02283g

[CLICK HERE](#)

A fluoros sodium L-prolinate derivative as low molecular weight gelator for perfluorocarbons

By Beniazza, Redouane; Bayo, Natalia; Jardel, Damien; Rust, Ruben; Mao, Bosi; Divoux, Thibaut; Schmutz, Marc; Castet, Frederic; Raffy, Guillaume; Del Guerso, Andre; et al

From Chemical Communications (Cambridge, United Kingdom) (2020), 56(61), 8655-8658.

Language: English, Database: CAPLUS,

DOI:10.1039/d0cc02446e

[CLICK HERE](#)

Vibrational, NMR and UV-Visible spectroscopic investigation on 10-methyl anthracene 9-carbaldehyde using computational calculations

By Jayachitra, K.; JobePrabakar, P. C.; Ramalingam, S.

From Journal of Molecular Structure (2020), 1217, 128435.

Language: English, Database: CAPLUS,

DOI:10.1016/j.molstruc.2020.128435

[CLICK HERE](#)

Chiral phase transfer catalysis in the asymmetric synthesis of a 3,3-disubstituted isoindolinone and determination of its absolute configuration by VCD spectroscopy

By Monaco, Guglielmo; Tiffner, Maximilian; Di Mola, Antonia; Herrebout, Wouter; Waser, Mario; Massa, Antonio

From Molecules (2020), 25(10), 2272.

Language: English, Database: CAPLUS,

DOI:10.3390/molecules25102272

[CLICK HERE](#)

Chirality induction on non-chiral dye-linked polysilsesquioxane in nanohelical structures

By Ryu, Naoya; Kawaguchi, Tsutomu; Yanagita, Hiroshi; Okazaki, Yutaka; Buffeteau, Thierry; Yoshida, Kyohei; Shirosaki, Tomohiro; Nagaoka, Shoji; Takafuji, Makoto; Ihara, Hirotaka; et al

From Chemical Communications (Cambridge, United Kingdom) (2020), 56(53), 7241-7244.

Language: English, Database: CAPLUS,

DOI:10.1039/d0cc02224a

[CLICK HERE](#)

Determining the Regiochemistry and Relative Stereochemistry of Small and Druglike Molecules Using an Alignment Algorithm for Infrared Spectra

By Boselt, Lennard; Dotzer, Reinhard; Steiner, Sandra; Stritzinger, Michaela; Salzmann, Susanne; Riniker, Sereina

From Analytical Chemistry (Washington, DC, United States) (2020), 92(13), 9124-9131.

Language: English, Database: CAPLUS,

DOI:10.1021/acs.analchem.0c01399

[CLICK HERE](#)

Impact of Excited-State Antiaromaticity Relief in a Fundamental Benzene Photoreaction Leading to Substituted Bicyclo[3.1.0]hexenes

By Slanina, Tomas; Ayub, Rabia; Toldo, Josene; Sundell, Johan; Rabten, Wangchuk; Nicaso, Marco; Alabugin, Igor; Fdez. Galvan, Ignacio; Gupta, Arvind K.; Lindh, Roland; et al

From Journal of the American Chemical Society (2020), 142(25), 10942-10954.

Language: English, Database: CAPLUS,

DOI:10.1021/jacs.9b13769

[CLICK HERE](#)

Solvent Effects and Aggregation Phenomena Studied by Vibrational Optical Activity and Molecular Dynamics: The Case of Pantolactone

By Ghidinelli, Simone; Abbate, Sergio; Koshoubu, Jun; Araki, Yasuyuki; Wada, Takehiko; Longhi, Giovanna

From Journal of Physical Chemistry B (2020), 124(22), 4512-4526.

Language: English, Database: CAPLUS,

DOI:10.1021/acs.jpccb.0c01483

[CLICK HERE](#)

Solid-state vibrational circular dichroism studies on the conformation of an amino acid molecule in crystalline state

By Sato, Hisako; Kawamura, Izuru

From Biochimica et Biophysica Acta, Proteins and Proteomics (2020), 1868(8), 140439. Language: English, Database: CAPLUS,

DOI:10.1016/j.bbapap.2020.140439

[CLICK HERE](#)

More complex, less complicated? Explicit solvation of hydroxyl groups for the analysis of VCD spectra

By Weirich, Luisa; Blanke, Katharina; Merten, Christian

From Physical Chemistry Chemical Physics (2020), 22(22), 12515-12523.

Language: English, Database: CAPLUS,

DOI:10.1039/d0cp01656j

[CLICK HERE](#)

Testing the vibrational exciton and the local mode models on the instructive cases of dicarvone, dipinocarvone, and dimenthol vibrational circular dichroism spectra

By Mazzeo, Giuseppe; Santoro, Ernesto; Abbate, Sergio; Zonta, Cristiano; Fabris, Fabrizio; Longhi, Giovanna

From Chirality (2020), 32(7), 907-921.

Language: English, Database: CAPLUS,

DOI:10.1002/chir.23232

[CLICK HERE](#)

Absolute Configuration of trans-Perhydroazulene

By Saito, Fumito; Gerbig, Dennis; Becker, Jonathan; Schreiner, Peter R.

From Organic Letters (2020), 22(10), 3895-3899.

Language: English, Database: CAPLUS,

DOI:10.1021/acs.orglett.0c01184

[CLICK HERE](#)

TRAVIS - A free analyzer for trajectories from molecular simulation

By Brehm, M.; Thomas, M.; Gehrke, S.; Kirchner, B.

From Journal of Chemical Physics (2020), 152(16), 164105.

Language: English, Database: CAPLUS,

DOI:10.1063/5.0005078

[CLICK HERE](#)

Exploring the gel phase of cationic glycyalanyl-glycine in ethanol/water. II. Spectroscopic, kinetic and thermodynamic studies

By Di Guiseppi, David M.; Thursch, Lavenia; Alvarez, Nicolas J.; Schweitzer-Stenner, Reinhard

From Journal of Colloid and Interface Science (2020), 573, 123-134.

Language: English, Database: CAPLUS,

DOI:10.1016/j.jcis.2020.03.108

[CLICK HERE](#)

A Proposed Method to Obtain Surface Specificity with Pump-Probe and 2D Spectroscopies

By Petti, Megan K.; Ostrander, Joshua S.; Birdsall, Erin R.; Kunz, Miriam Bohlmann; Armstrong, Zachary T.; Alperstein, Ariel M.; Zanni, Martin T.

From Journal of Physical Chemistry A (2020), 124(17), 3471-3483.

Language: English, Database: CAPLUS,

DOI:10.1021/acs.jpca.9b11791

[CLICK HERE](#)

Theoretical Studies into the Spectral Characteristics, Biological Activity, and Photovoltaic Cell Efficiency of Four New Polycyclic Aromatic Chalcones

By Al-Otaibi, Jamelah S.; Mary, Y. Sheena; Thomas, Renjith; Narayana, B.

From Polycyclic Aromatic Compounds (2020), Ahead of Print.

Language: English, Database: CAPLUS,

DOI:10.1080/10406638.2020.1747097

[CLICK HERE](#)

A new horizon for vibrational circular dichroism spectroscopy: a challenge for supramolecular chirality

By Sato, Hisako

From Physical Chemistry Chemical Physics (2020), 22(15), 7671-7679.

Language: English, Database: CAPLUS,

DOI:10.1039/d0cp00713g

[CLICK HERE](#)