

Dr. NIKOLAOS TSOUREAS

(<http://www.researcherid.com/rid/A-8766-2011> ; <http://orcid.org/0000-0003-0262-9382>)

e-mail: [ntsoureas@chem.uoa.gr](mailto:ntsoureas@chem.uoa.gr)

Telephone: +30 210 727 4458

Office: 2<sup>nd</sup> floor (Laboratory of Inorganic Chemistry), Wing A, Office 7

### Studies

#### **2005 PhD in chemistry, University of Southampton, United Kingdom**

Title of thesis: "Synthesis of Phosphine and Pyridine Functionalised *N*-heterocyclic carbene complexes of Platinum Group Metals"

#### **2001 BSc Chemistry, NTUA**

Title of Diploma dissertation: "Selective hydrolysis of nitriles to amides using tungsten and rhenium clusters"

### Memberships

Member of the Royal Society of Chemistry

Member of the Hellenic Crystallographic Association


### Appointments

3/2022-today	Assistant Professor, Department of Chemistry, NKUA, Greece
2010-2022	Senior Research Assistant, University of Sussex, United Kingdom
2007-2010	Postdoctoral Researcher, University of Bristol, United Kingdom
2007	Postdoctoral Researcher, University of St-Andrews, United Kingdom
2005-2006	Postdoctoral Researcher, University of Southampton, United Kingdom

### Research Interests:

- Proton Coupled Electron Transfer and its application in catalysis, small molecule activation (e.g. CH<sub>4</sub>) and inorganic/organometallic synthesis
- Synthesis of organometallic complexes and coordination compounds of the transition metals and the f-block in unusual oxidation states and in low coordination numbers and their application in small molecule activation.
- Chemistry of boroles and bismuth.
- Electrochemistry of organometallic compounds and electrocatalysis.
- Single crystals X-ray crystallography and molecular structure.

### SELECTED RESEARCH PUBLICATIONS click on the title to access the online version

**41 original research publications (h-index 20, Web of Science).** For the whole list of publication click here. 

Selected publications (last 6 years):

1. [Synthesis, bonding properties and ether activation reactivity of cyclobutadienyl-ligated hybrid uranocenes](#) **Nikolaos Tsoureas**, Akseli Mansikkamäki<sup>†c</sup> and Richard A. Layfield *Chem. Sci.*, 2021, 2948-2954.
2. [Ethene Activation and Catalytic Hydrogenation by a Low-Valent Uranium Pentalene Complex.](#) **Nikolaos Tsoureas**, L. Maron, A. F. R. Kilpatrick, R. A. Layfield and F. G. N. Cloke *J. Am. Chem. Soc.*, 2020, **142**, 89-92. Highlighted in [Phys.org](#), [Science Daily](#), [Ναυτεμπορική](#) και [άλλες](#).
3. [Uranium\(IV\) cyclobutadienyl sandwich compounds: synthesis, structure and chemical bonding](#) **Nikolaos Tsoureas**, A. Mansikkamäki and R. A. Layfield *Chem. Commun.*, 2020, **56**, 944-947.

4. [Trimerisation of carbon suboxide at a di-titanium centre to form a pyrone ring system](#) **Nikolaos Tsoureas**, J. C. Green, F. G. N. Cloke, H. Puschmann, S. M. Roe, G. Tizzard *Chem Sci.*, 2018, **9**, 5008-5014.
5. [C–H and H–H activation at a di-titanium centre.](#) **Nikolaos Tsoureas**, Jennifer C. Green, F. Geoffrey N. Cloke *Chem. Commun.*, 2017, **53**, 13117-12120.
6. [Steric control of redox events in organo-uranium chemistry: synthesis and characterisation of U\(V\) oxo and nitrido complexes.](#) **Nikolaos Tsoureas**, A. F. R. Kilpatrick, C. J. Inman and F. G. N. Cloke *Chem. Sci.*, 2016, **7**, 4624-4632.
7. [Controlling selectivity in the reductive activation of CO<sub>2</sub> by mixed sandwich uranium\(III\) complexes.](#) **Nikolaos Tsoureas**, L. Castro, A. F. R. Kilpatrick, F. G. N. Cloke, L. Maron *Chem. Sci.*, 2014, **5**, 3777-3788. Highlighted in [Chemistry World](#) and [Scientific American](#).

Publications after invitation (refereed):

1. [Reactions of a Bis\(pentalene\)ditanium complex with alkenes: the molecular structure of the butadiene complex \[Ti<sub>2</sub>\(μ:η<sup>5</sup>.η<sup>5</sup>-Pn<sup>tt</sup>\)<sub>2</sub>\(μ:η<sup>2</sup>.η<sup>2</sup>-s-trans-C<sub>4</sub>H<sub>6</sub>\)\] \(Pn<sup>tt</sup> = 1,4-\(Si<sup>i</sup>Pr<sub>3</sub>\)<sub>2</sub>-C<sub>8</sub>H<sub>4</sub>\)](#) Mathew Molloy, Alexander F.R. Kilpatrick, Nikolaos Tsoureas and F. Geoffrey N. Cloke *Polyhedron*, 2022, **212**, 115574.
2. [Mixed sandwich imido complexes of Uranium\(V\) and Uranium\(IV\): Synthesis, structure and redox behavior](#) **Nikolaos Tsoureas** and F. Geoffrey N. Cloke<sup>s</sup> *J. Organomet. Chem.*, 2018, **857**, 25-33.
3. [Activation of carbon suboxide \(C<sub>3</sub>O<sub>2</sub>\) by U\(III\) to form a cyclobutane-1,3-dione ring](#) **Nikolaos Tsoureas** and F. Geoffrey N. Cloke *Chem. Commun.*, 2018, **54**, 8830-8833.
4. [Bis\(pentalene\)ditanium chemistry: C-H, C-X and H-H bond activation](#) **Nikolaos Tsoureas**, Jennifer C. Green<sup>tc</sup> and F. Geoffrey N. Cloke *Dalton Trans.* 2018, **47**, 14531-14539.

Chapters in books:

[Arene Complexes of the Group 3 and Lanthanides](#) in the latest edition of *Comprehensive Organometallic Chemistry IV* **Nikolaos Tsoureas** and F. Geoffrey N. Cloke (Theme Editors: Prof Stephen T. Liddle and Dr David P. Mills).

Invited Lectures:

[ACS Cotton Award in honour of Marinella Mazzanti 2021\(8, 9 και 12 April 2021\)](#)

[National and Kapodistrian University of Athens 2020:](#) – Lecture title: Sandwiches, hot-dogs and small molecule activation

International Conferences: 16

Scientific Collaborations:

- Prof Michael Hill, University of Bath (United Kingdom)
- Prof Laurent Maron, University of Toulouse (France)
- Dr George Kostakis, University of Sussex (United Kingdom)
- Dr Dominik Halter, Technical University Munich (Germany)
- Prof Simon J. Coles, EPSRC National Crystallography Service, University of Southampton (United Kingdom)