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Research output

Molecular dynamics simulation on surface modification of quantum scaled CuO nano-clusters to support their experimental studies

Loya, A., Stair, J., Uddin, F. & Ren, G., 5 Oct 2022, In: Scientific Reports. 12, 1, 17 p., 16657.

Flipped detection of psychoactive substances in complex mixtures using handheld Raman spectroscopy coupled to chemometrics

Calvo-Castro, J., Tchakounte, S. N., Guarino, V., Ahmed, A. A. & Stair, J. L., 23 May 2022, In: Journal of Raman Spectroscopy. 17 p.

NPS detection in Prison: a Systematic Literature Review of Use, Drug Form, and Analytical Approaches

Stair, J., Vaccaro, G., Guirguis, A., Kirton, S. & Massariol, A., 30 Mar 2022, (E-pub ahead of print) In: Drug Testing and Analysis. 31 p.

Raman spectroscopy coupled to computational approaches towards understanding self-assembly in thermoreversible poloxamer gels

Cook, M. T., Abou Shamat, M., Stair, J. & Calvo-Castro, J., 3 Feb 2022, In: Journal of Molecular Liquids. 25 p., 118660.

A Design-of-Experiments Approach to Developing Thermoresponsive Gelators From Complex Polymer Mixtures

Kirton, S., Stair, J., Abou Shamat, M., Calvo-Castro, J. & Cook, M. T., 13 Oct 2020, (E-pub ahead of print) In: Molecular Systems Design & Engineering.

Novel psychoactive substances (NPS) – knowledge and experiences of drug users from Hungary, Poland, the UK and the USA

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Abou Shamat, M., Calvo-Castro, J., Stair, J. & Cook, M., 22 Jul 2019, (E-pub ahead of print) In: Macromolecular Chemistry and Physics. 220, 16, 1900173.

Detection of Newly Emerging Psychoactive Substances Using Raman Spectroscopy and Chemometrics

Calvo-Castro, J., Guirguis, A., Samaras, E., Zloh, M., Kirton, S. & Stair, J., 12 Sep 2018, (E-pub ahead of print) In: RSC Advances. 8, 56, p. 31924-31933 10 p.

Structural characterisation of antimicrobial Copper oxides and its leaching study using inductively coupled plasma optical emission spectrometry (ICP-OES)

Cheong, Y. K., Yang, X., Stair, J. & Ren, G., 24 Nov 2017, *Phantoms foundation*. p. 156-157

Drowning in Diversity? A systematic way of clustering a representative set of new psychoactive substances

Zloh, M., Samaras, E., Calvo-Castro, J., Guirguis, A., Stair, J. & Kirton, S., 17 Nov 2017, (E-pub ahead of print) In: RSC Advances. 7, 84, p. 53181-53191 11 p.

Intended and Unintended Use of Cathinone Mixtures

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Method Development for the Determination of Elements in Hypericum perforatum L. (St John's wort) Herb and Preparations using ICP-OES and Microwave Digestion

Owen, J., Evans, S., Guirguis, A., Kellett, K. & Stair, J., 31 May 2017, (E-pub ahead of print) In: Journal of Pharmacy and Pharmacology.

Identification of new psychoactive substances (NPS) using handheld Raman Spectroscopy employing both 785 and 1064 nm laser sources

Guirguis, A., Giroto, S., Berti, B. & Stair, J., 1 Apr 2017, In: Forensic Science International. 273, p. 113-123 10 p.

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Identification of new psychoactive substances using Raman spectroscopy: handheld and computational approaches.

Guirguis, A., Kirton, S., Zloh, M., Samaras, E., Giroto, S., Berti, B. & Stair, J., May 2016, *Identification of new psychoactive substances using Raman spectroscopy: : handheld and computational approaches*. 3 ed. UK: Research and Advances in Psychiatry, Vol. 2. p. 94 1 p.

Determination of Cu²⁺ ions release rate from antimicrobial copper bearing stainless steel by joint analysis using ICP-OES and XPS

Ren, L., Chong, J., Loya, A., Kang, Q., Stair, J., Nan, L. & Ren, G., 30 Aug 2015, In: Materials Technology. 30, B2, p. 86-89 4 p.

Survey of knowledge of legal highs (novel psychoactive substances) amongst London pharmacists

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A molecular dynamic investigation of viscosity and diffusion coefficient of nanoclusters in hydrocarbon fluids

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Presence of metals in herbal extracts

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5,6-Methylenedioxy-2-aminoindane: from laboratory curiosity to 'legal high'

Gallagher, C. T., Assi, S., Stair, J. L., Fergus, S., Corazza, O., Corkery, J. & Schifano, F., 1 Mar 2012, In: Human Psychopharmacology. 27, 2, p. 106-112 7 p.

Phenomenon of new drugs on the Internet: the case of ketamine derivative methoxetamine

Corazza, O., Schifano, F., Simonato, P., Fergus, S., Assi, S., Stair, J., Corkery, J., Trincas, G., Deluca, P., Davey, Z., Blaszkowski, U., Demetrovics, Z., Moskalewicz, J., Enea, A., di Melchiorre, G., Mervo, B., Di Furia, L., Farre, M., Flesland, L., Pasinetti, M., & 12 othersPezzolesi, C., Pisarska, A., Shapiro, H., Siemann, H., Skutle, A., Enea, A., di Melchiorre, G., Sferrazza, E., Torrens, M., van der Kreeft, P., Zummo, D. & Scherbaum, N., 2012, In: Human Psychopharmacology. 27, 2, p. 145-9 5 p.

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Mephedrone (4-methylmethcathinone; 'meow meow'): chemical, pharmacological and clinical issues

Schifano, F., Albanese, A., Fergus, S., Stair, J., Deluca, P., Corazza, O., Davey, Z., Corkery, J., Siemann, H., Scherbaum, N., Farre, M., Torrens, M., Demetrovics, Z., Ghodse, A. H. & ReDNet Res Grp, Psychonaut Web Mapping, 2011, In: Psychopharmacology. 214, 3, p. 593-602 10 p.

Elemental Profile of Hypericum perforatum (St John's Wort) Preparations Using Icp-Oes

Owen, J. D., Evans, S. J. & Stair, J. L., Oct 2010, In: Journal of Pharmacy and Pharmacology. 62, 10, p. 1206-1207 2 p.

Sensor materials for the detection of proteases

Stair, J. L., Watkinson, M. & Krause, S., 15 Mar 2009, In: Biosensors & Bioelectronics. 24, 7, p. 2113-2118 6 p.

Metal binding characterization and conformational studies using Raman microscopy of resin-bound poly(aspartic acid)

Stair, J. L. & Holcombe, J. A., 1 Mar 2007, In: Analytical Chemistry. 79, 5, p. 1999-2006 8 p.

Quantitative determination of single-bead metal content from a peptide combinatorial library

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Metal remediation and preconcentration using immobilized short-chain peptides composed of aspartic acid and cysteine

Holcombe, J. A. & Stair, J., Aug 2005, In: Microchemical journal. 81, 1, p. 69-80 12 p.

Immobilized peptides/amino acids on solid supports for metal remediation

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Enhancement of the Ion-Transport Selectivity of Layered Polyelectrolyte Membranes through Cross-Linking and Hybridization

Stair, J., 11 Jul 2001, In: Chemistry of Materials. 13, 8

Layered Polyelectrolyte Films as Selective, Ultrathin Barriers for Anion Transport

Stair, J., 23 Jun 2000, In: Chemistry of Materials. 12, 7, p. 1941-1946

Projects

Antiviral and Antibacterial Stainless Steel

Ren, G., Fitt, B. & Stair, J.

Royal Academy of Engineering (RAE)

1/08/13 → 30/11/14

Assessing Knowledge and Enhancing Detection of Seized Psychoactive Substances in Prisons

Guirguis, A., Stair, J. & Kirton, S.

1/02/18 → 31/01/21

Antiviral-QAuCuNPs: Creation of gold nanocluster modified copper nanoparticles in colloids to enhance their antiviral performance against coronaviruses including COVID-19

Ren, G., Ryan, S., Gorog, D., Stair, J. & Timms, A.

3/05/21 → 2/05/23

Developing sensors for 'Legal Highs': A funding request to work in an expert laboratory in the United States

Stair, J. & Kellett, K.

Santander Universities Network

1/04/14 → 1/09/14

Development of forensic methodologies for the in-field identification of opioids (prescription & designer) using Raman spectroscopic and chemometric approaches

Guirguis, A., Stair, J. & Kirton, S.

17/09/18 → 16/09/22

EU - MADNESS European-wide Monitoring, Analysis and knowledge Dissemination on Novel/Emerging Psychoactives) integrated EU NPS monitoring and profiling to prevent health harms and update professionals

Schifano, F., Corkery, J. & Stair, J.

European Commission (EC) - Horizon 2020

1/04/14 → 30/05/16

Enhancing Police Skills concerning Novel Psychoactive Substances (NPS)

Schifano, F., Corkery, J. & Stair, J.

European Commission (EC) - Horizon 2020

1/01/15 → 31/12/16

Evaluation of tablet quality for veterinary use

Liu, F., Stair, J., Scott, M. & Baker, D.

1/01/21 → 1/07/21

Identification and quantification of cathinone derivatives using Raman spectroscopy and chemometrics

Stair, J.

Royal Society of Chemistry (RSC)

1/06/12 → 31/07/12

31 March 2023: Identification, selection, characterization and optimisation of antimicrobial proteins from food insects and indigenous chickens' skin and feathers as ingredients for food and industrial applications

Ren, G., Timms, A., Fitt, B., Stair, J., Oloo, B., Nduko, J., Ogendo, J. & Mungai, N.

1/10/22 → ...

Investigation of Impurities in Diclofenac

Brown, M., Stair, J. & Traynor, M.

Futura Medical Plc

1/07/08 → 31/03/09

Quality analysis of tablets for veterinary use

Liu, F., Stair, J., Scott, M. & Baker, D.