

Lorraine Gibson  
Senior Teaching Fellow  
Pure And Applied Chemistry  
**Type of address: Postal address.**  
United Kingdom  
**Email:** lorraine.gibson@strath.ac.uk  
**Phone:** 01415482795



## Projects

### **VOC: BTG- Researcher-led Project**

Gibson, L. & Patwardhan, S.  
5/09/11 → ...

### **Examining the Impact of the Covid-19 Pandemic on the Employability of Students - an Employer's Perspective (Emma Burns)**

Walker, S., Gibson, L. & Scott, F.  
Royal Society of Chemistry  
21/06/21 → 20/09/21

### **Heritage smells (Full)**

Gibson, L.  
AHRC (Arts and Humanities Research Council)  
1/09/10 → 31/05/14

### **Longer Life for Collections**

Gibson, L.  
Mellon Foundation  
1/12/07 → 28/02/09

### **Programme Leadership in Scottish HEIs: A Cross-Discipline Community of Practice**

Gibson, L., Monk, E., MACKAY, W., Heyman, I., Porter, J. & Gunatilake, G.

### **Realise Equal Access to Learning: REAL Chemistry Communities**

Gibson, L.

### **Research Interns@Strathclyde - Examining the impact of the Covid-19 pandemic on teaching practices within the Department of Pure and Applied Chemistry**

Walker, S., Scott, F. & Gibson, L.  
5/07/21 → 27/08/21

### **Staff Lessons on Learning to be Learned from from Lockdown - a Staff Perspective**

Gibson, L.  
5/07/21 → 27/08/21

### **EnviArt: UK Manager of Action Leadership on COST D42**

Gibson, L., Havermands, J., Adriaens, A., Strlic, M., van Grieken, R., Smolik, J., Dupont, A., Salthammer, T., Bioletti, S., Camuffo, D., Gunneweg, J., Grontoft, T., Lojewski, T., Radvan, R., Castillejo, M., Sandstrom, M., Woerle, M. & Okyar, F.  
2/10/06 → 1/10/10

## Research output

### **Low-cost colorimetric mercury sensor based on immobilisation of rhodamine B thiolactone in a sustainable agar-agar gel substrate**

Nshsh, K. M., Cavoura, O., Davidson, C. M. & Gibson, L. T., 31 Dec 2023, In: Microchemical Journal. 195, 9 p., 109481.

**Lockdown labs: pivoting to remote learning in forensic science higher education**

Davidson, K. J., Haddrill, P. R., Casali, F., Murphy, B., Gibson, L., Robinson, M., Clunie, A., Christie, J., Curran, L. & Carlysle-Davies, F., 30 Nov 2022, In: *Science and Justice*. 62, 6, p. 805-813 9 p.

**Kinetic and isotherm studies on the adsorption–desorption of technical-grade endosulfan in loamy soils under Theobroma cacao L cultivation, Southwestern Nigeria**

Vaikosen, E. N., Davidson, C. M., Olu-Owolabi, B. I., Gibson, L. T., Agunbiade, F. O., Kashimawo, A. J. & Adebowale, K. O., 29 Nov 2022, (E-pub ahead of print) In: *Environmental Science: Advances*. 2, 2, p. 257-277 21 p.

**Green nanosilicas for monoaromatic hydrocarbons removal from air**

Ewlad-Ahmed, A. M., Morris, M., Holmes, J., Belton, D. J., Patwardhan, S. V. & Gibson, L. T., 22 Jan 2021, In: *Silicon*. 8 p.

**Kinetic field dissipation and fate of endosulfan after application on theobroma cacao farm in tropical Southwestern Nigeria**

Vaikosen, E. N., Olu-Owolabi, B. I., Gibson, L. T., Adebowale, K. O., Davidson, C. M. & Asogwa, U., 1 Mar 2019, In: *Environmental Monitoring and Assessment*. 191, 3, 196.

**GC-MS fragmentation patterns of sprayed endosulfan and its sulphate metabolite in samples of Theobroma cacao L from a field kinetic study**

Vaikosen, E. N., Gibson, L. T., Davidson, C. M., Owolabi, B. I., Adebowale, K., Ebeshi, B. U. & Diagboya, P. N. E., 15 Nov 2018, (Accepted/In press) In: *European Journal of Mass Spectrometry*. 26 p.

**Classifying degraded modern polymeric museum artefacts by their smell**

Curran, K., Underhill, M., Grau-Bové, J., Fearn, T., Gibson, L. T. & Strlič, M., 2 Mar 2018, (E-pub ahead of print) In: *Angewandte Chemie*. 6 p.

**Photocatalytic air-purification: a low-cost, real-time gas detection method**

Keane, D. A., Hamilton, N., Gibson, L. T., Pillai, S. C., Holmes, J. D. & Morris, M. A., 7 Jan 2017, In: *Analytical Methods*. 9, p. 170-175 6 p.

**Iron supported on bioinspired green silica for water remediation**

Alotaibi, K. M., Shiels, L., Lacaze, L., Peshkur, T. A., Anderson, P., Machala, L., Critchley, K., Patwardhan, S. V. & Gibson, L. T., 13 Sept 2016, In: *Chemical Science*. 8, p. 567-576 10 p.

**Emission profiles from polymeric materials: characterised by thermal desorption-gas chromatography**

Mitchell, G., Higgitt, C. & Gibson, L., 30 Sept 2014, In: *Polymer Degradation and Stability*. 107

**Cross-infection effect of polymers of historic and heritage significance on the degradation of a cellulose reference test material**

Curran, K., Možir, A., Underhill, M., Gibson, L. T., Fearn, T. & Strlič, M., Sept 2014, In: *Polymer Degradation and Stability*. 107, p. 294–306 13 p.

**Mesosilica and organic pollutant removal adsorption: part A removal from air**

Gibson, L., 7 Aug 2014, In: *Chemical Society Reviews*. 43, 15, p. 5163-5172 10 p.

**Mesosilica materials and organic pollutant adsorption: part B removal from aqueous solution**

Gibson, L., 7 Aug 2014, In: *Chemical Society Reviews*. 43, 15, p. 5173-5182 10 p.

**Non-invasive multiresidue screening methods for the determination of pesticides in heritage collections**

Rushworth, I. D., Higgitt, C., Smith, M. & Gibson, L., 4 Feb 2014, In: *Heritage Science*. 2, February, 8 p., 3.

**Investigation of long term storage solutions for rubber garments**

Hacke, M., Willey, J., Mitchell, G., Rushworth, I. D., Higgitt, C. & Gibson, L., 2014, In: *Journal of the Institute for Conservation*. 37, 2, p. 179-196 18 p.

**Assessment of historical polymers using attenuated total reflectance-Fourier transform infra-red spectroscopy with principal component analysis**

Mitchell, G., France, F., Nordon, A., Tang, P. L. & Gibson, L. T., 11 Sept 2013, In: *Heritage Science*. 1, 1, 28.

**Adsorption kinetic study: effect of adsorbent pore size distribution on the rate of Cr (VI) uptake**

Idris, S. A. M., Alotaibi, K. M. N., Peshkur, T. A., Anderson, P., Morris, M. A. & Gibson, L., 1 Jan 2013, In: *Microporous and Mesoporous Materials*. 165, p. 99-105 7 p.

**Removal of formaldehyde from air using functionalized silica supports**

Ewlad-Ahmed, A., Morris, M. A., Patwardhan, S. & Gibson, L., 18 Dec 2012, In: *Environmental Science and Technology*. 46, 24, p. 13354-13360 7 p.

**Preconcentration and selective extraction of chromium species in water samples using amino modified mesoporous silica**

Idris, S. A. M., Alotaibi, K. M. N., Peshkur, T. A., Anderson, P. & Gibson, L., 15 Nov 2012, In: *Journal of Colloid and Interface Science*. 386, 1, p. 344-349 6 p.

**Measurement of volatile organic compounds emitted in libraries and archives: an inferential indicator of paper decay?**

Gibson, L., Ewlad-Ahmed, A., Knight, B., Horie, V., Mitchell, G. & Robertson, C. J., 15 May 2012, In: *Chemistry Central Journal*. 6, 22 p., 42.

**Green materials for environmental remediation**

Patwardhan, S., Fletcher, A. & Gibson, L., 2012.

**Selective extraction of mercury(II) from water samples using mercapto functionalised-MCM-41 and regeneration of the sorbent using microwave digestion**

Idris, S. A. M., Harvey, S. R. & Gibson, L., 15 Oct 2011, In: *Journal of Hazardous Materials*. 193, p. 171-176 6 p.

**Large pore diameter MCM-41 and its application for lead removal from aqueous media**

Idris, S. A., Davidson, C. M., McManamon, C., Morris, M. A., Anderson, P. & Gibson, L. T., 30 Jan 2011, In: *Journal of Hazardous Materials*. 185, 2-3, p. 898-904 7 p.

**Volatile aldehydes in libraries and archives**

Fenech, A., Cigic, I. K., Levart, A., Gibson, L. T., de Bruin, G., Ntanos, K., Kolar, J. & Cassar, M., 30 Jun 2010, In: *Atmospheric Environment*. 44, 17, p. 2067-2073 7 p.

**Acetic and formic acids emitted from wood samples and their effect on selected materials in museum environments**

Gibson, L. T. & Watt, C. M., Jan 2010, In: *Corrosion Science*. 52, 1, p. 172-178 7 p.

**A comparative study of selected sorbents for sampling of aromatic VOCs from indoor air**

Idris, S. A. M., Robertson, C. J., M.A., M. & Gibson, L., 2010, In: *Analytical Methods*. 2, 11, p. 1803-1809 7 p.

**Porous silica spheres as indoor air pollutant scavengers**

Delaney, P., Healy, R., Hanrahan, J. P., Gibson, L., Wenger, J. C., Morris, M. A. & Holmes, J. D., 2010, In: *Journal of Environmental Monitoring*. 12, 12, p. 2244-2251 8 p.

**Thermal volatilisation analysis - the development of a novel technique for the analysis of conservation artifacts**

Lewicki, J. P., Todd, D., Redon, P., Liggat, J. & Gibson, L., 1 Dec 2008, *Materials Research Society Symposium Proceedings - Materials Issues in Art and Archaeology VIII*. Cambridge University Press, Vol. 1047. p. 307-318 12 p.

**On-site determination of formaldehyde: a low cost measurement device for museum environments**

Gibson, L. T., Kerr, W. J., Nordon, A., Reglinski, J., Robertson, C., Turnbull, L., Watt, C. M., Cheung, A. & Johnstone, W., 8 Aug 2008, In: *Analytica Chimica Acta*. 623, 1, p. 109-116 8 p.

**Thermal volatilisation analysis? the development of a novel technique for the analysis of conservation artifacts**

Lewicki, J. P., Todd, D., Redon, P., Liggat, J. J. & Gibson, L. T., Nov 2007, *Materials Issues in Art and Archaeology*. 1047 ed. Vol. VIII. p. 307-318 11 p. (Materials Research Society Symposium Proceedings).

**[Mo(TmMe)(O)2Cl]: an alternative functional model of sulfite oxidase**

Spicer, M., Reglinski, J., Wallace, D. & Gibson, L., 2007, In: *Inorganic Chemistry*. 46, p. 3804 - 3806 3 p.

**A collection of ceramics damaged by acetate salts: conservation and investigation into the causes**

Halsberghe, L., Gibson, L. T. & Erhardt, D., 2005. 8 p.

**Simple methods for the identification of acetate salts on museum objects**

Halsberghe, L., Erhardt, D., Gibson, L. T. & Zehnder, K., 2005. 8 p.

**The conservation and analysis of 19th and 20th century Scottish glass**

Eremin, K., Codo del Arco, B., Robinet, L. & Gibson, L. T., 2005.

**The mode of formation of thecotrichite, a widespread calcium acetate chloride nitrate efflorescence**

Gibson, L. T., Cooksay, B. G., Littlejohn, D., Tennent, N. H., Linnow, K. & Steiger, M., 2005, In: *Studies in Conservation*. 50, 4, p. 1-10 9 p.

**A Raman spectroscopic study of pollution-induced glass deterioration**

Robinet, L., Eremin, K., del Arco, A. C. & Gibson, L. T., Aug 2004, In: *Journal of Raman Spectroscopy*. 35, 8-9, p. 662-670 8 p.

**From metalloproteins to coordination chemistry: a learning exercise to teach transition metal chemistry**

Reglinski, J., Graham, D., Kennedy, A. R. & Gibson, L. T., Jan 2004, In: *Journal of Chemical Education*. 81, 1, p. 76-82 6 p.

**Archaeometry and antique analysis: (b) metallic and ceramic objects**

Gibson, L. T., Worsfold, P. J. (ed.), Townshend, A. (ed.) & Poole, C. F. (ed.), 2004, *Encyclopedia of Analytical Science*. Oxford, UK: Elsevier Limited, p. 117-123 6 p.

**Archaeometry and antique analysis: art and conservation**

Gibson, L. T., Worsfold, P. J. (ed.), Townshend, A. (ed.) & Poole, C. F. (ed.), 2004, *Encyclopedia of analytical science*. Oxford, UK: Elsevier Limited, p. 123-127 4 p.

**Hexameric Mg-O stacks with six THF-solvated sodium amide appendages: 'Super' variants of inverse crown ethers generated by cleavage of THF**

Drummond, A. M., Gibson, L. T., Kennedy, A. R., Mulvey, R. E., O'Hara, C. T., Rowlings, R. B. & Weightman, T., 2002, In: *Angewandte Chemie*. 41, 13, p. 2383-2384 1 p.

**A passive tube-type sampler for the determination of formaldehyde vapours in museum enclosures**

Gibson, L. T. & Brokerhof, A. W., 2001, In: *Studies in Conservation*. 46, 4, p. 289-303 14 p.

**Dicalcium triacetate nitrate dihydrate**

Cooksey, B. G., Gibson, L. T., Kennedy, A. R., Littlejohn, D., Stewart, L. & Tennent, N. H., 15 Mar 1999, In: *Acta Crystallographica Section C: Crystal Structure Communications*. 55, p. 324-326 3 p.

**Detection and mitigation of carbonyls**

Gibson, L., 1998, In: *Scottish Society for Conservation Research*. 9, 4, p. 18-19 2 p.

### **A diffusion tube sampler for the determination of acetic acid and formic acid vapours in ambient air**

Gibson, L. & Littlejohn, D., 1997, In: *Analytica Chimica Acta*. 341, 1, p. 11-19 9 p.

### **Cabinet pollution**

Aldridge, F., Gibson, L. & Littlejohn, D., 1997, In: *Analysis Europa*. 9, p. 1-5 5 p.

### **Characterisation of an unusual efflorescence salt on Egyptian limestone relief**

Gibson, L. & Littlejohn, D., 1997, In: *Analytica Chimica Acta*. 337, 2, p. 151-164 14 p.

### **Determination of acetic acid and formic acid in the museum environment by passive sampling**

Gibson, L., 1997, In: *European Cultural Heritage Newsletter on Research (ECHNR)*. 10, p. 108-112 5 p.

### **Determination of experimental diffusion coefficients of acetic acid and formic acid vapours in air using a passive sampler**

Gibson, L. & Littlejohn, D., 1997, In: *Analytica Chimica Acta*. 341, p. 1-10 10 p.

### **Investigation of the occurrence of a unique efflorescence salt on calcareous museum items**

Gibson, L., 1997, In: *Analytica Chimica Acta*. 337, 3, p. 253-264 12 p.

### **Pollution from showcases: a passive sampler for acetic and formic acid vapours**

Gibson, L., 1996, In: *Museum Practice*. 1, 2, p. 46-47 2 p.

### **Analytical Studies of the Degradation of Calcareous Artefacts in Museum Environments**

Gibson, L., 1995, 275 p.

### **Application of SEM and TEM to the study of blackened tin-glazed earthenware excavated from anaerobic sites in Holland**

Baird, T. & Gibson, L., 1992, *Electron Microscopy 92: Proceedings of the 10th European Congress on Electron Microscopy*. Vol. 2. p. 781-782 2 p.

## **Activities**

### **The one-page reference guide: supporting students in a post open-book world**

Patrick Thomson (Speaker), Lorraine Gibson (Speaker) & Gan Shermer (Speaker)

25 Aug 2023

### **Examining the impact of the COVID-19 pandemic on student employability: An employer's perspective**

Sarah Walker (Speaker), Fraser Scott (Contributor) & Lorraine Gibson (Contributor)

7 Jul 2022

### **MICRO: Development and Deployment of Microfluidic Based Labs in Chemistry**

Lorraine Gibson (Participant) & Kim Frederick (Participant)

26 Jul 2021 → 28 Jul 2021

### **Community of Practice in Educational Leadership**

Lorraine Gibson (Participant), Bill MacKay (Participant), Joanne Porter (Participant), Elizabeth Monk (Participant), Inga Heyman (Participant) & Gayathri Gunatilake (Participant)

Mar 2021 → ...

### **QAA Programme Leadership Collaborative Cluster**

Lorraine Gibson (Participant)

18 Feb 2021 → 21 May 2021

### **Quality Assurance Agency for Higher Education (External organisation)**

Lorraine Gibson (Advisor)

Feb 2021 → Oct 2021

**Embedding EDI in Higher Education Chemistry Programmes**

Lorraine Gibson (Participant) & Stefano Biagini (Participant)  
2021 → ...

**14th International Conference in Indoor Air Quality in Heritage and Historic Environments**

Lorraine Gibson (Participant)  
12 Oct 2020 → 16 Oct 2020

**CPD - Excellence in Report Writing**

Laura Reaney (Participant), Karen Jones (Organiser), Fabio Casali (Participant), Katie DAVIDSON (Participant), Felicity Carlyse-Davies (Participant), Bronagh Murphy (Participant), Pamela Allan (Participant), Moira McMenemy (Participant), Barry Moore (Participant), Lorraine Gibson (Participant), Lynn Dennany (Participant) & Penny Haddrill (Participant)  
2 Jul 2020 → 3 Jul 2020

**13th International Conference in Indoor Air Quality in Heritage and Historic Environments**

Lorraine Gibson (Participant)  
10 Oct 2018 → 12 Oct 2018

**External Examiner University College London**

Lorraine Gibson (Examiner)  
2018 → 2020

**External Examiner University of Loughborough**

Lorraine Gibson (Examiner)  
2017 → 2021

**PhD external examiner University of Amsterdam**

Lorraine Gibson (Examiner)  
2017

**12th International Conference in Indoor Air Quality in Heritage and Historic Environments**

Lorraine Gibson (Participant)  
3 Mar 2016 → 4 Mar 2016

**Non-Invasive Sensors for the Detection of Pesticides on Museum Objects**

Lorraine Gibson (Speaker)  
14 Sept 2014 → 19 Sept 2014

**United Nations International Atomic Energy Agency International Workshop**

Lorraine Gibson (Keynote/plenary speaker)  
7 Jul 2014 → 11 Jul 2014

**Examination of VOCs from polymer objects**

Lorraine Gibson (Speaker)  
13 Apr 2014 → 16 Apr 2014

**Novel sensors for detection of selected pesticides on museum objects**

Lorraine Gibson (Speaker)  
13 Apr 2014 → 16 Apr 2014

**External Examiner University of Plymouth**

Lorraine Gibson (Examiner)  
2014 → 2018

**PhD External Examiner Queen's University Belfast**

Lorraine Gibson (Examiner)  
2014

**British Museum Heritage Smells Public Outreach Event**

Lorraine Gibson (Recipient), Linda Ramsay (Participant), Katherine Curran (Participant) & Gemma Mitchell (Participant)  
10 Nov 2013 → 17 Nov 2013

**Sustaining the Impact of UK Science and Heritage Research**

Lorraine Gibson (Speaker)  
29 Oct 2013

**Manchester Science Festival**

Lorraine Gibson (Participant)  
24 Oct 2013 → 3 Nov 2013

**Heritage Smells!**

Lorraine Gibson (Speaker)  
18 Oct 2013

**Full Frontal Nerdity Comedy Show**

Lorraine Gibson (Recipient), Katherine Curran (Participant) & Linda Ramsay (Participant)  
22 Mar 2013

**Heritage Smells: Pollution in the Indoor Air Environment**

Lorraine Gibson (Speaker)  
14 Mar 2013

**PhD External Examiner University of Plymouth**

Lorraine Gibson (Examiner)  
2013

**Analytical Science in a Heritage Context**

Lorraine Gibson (Speaker)  
10 Jul 2012

**Heritage Smells: Vapour sensing around heritage objects**

Lorraine Gibson (Speaker)  
17 Jun 2012 → 20 Jun 2012

**Acid emissions and their interaction with museum objects**

Lorraine Gibson (Host)  
23 Feb 2012 → 22 Jun 2012

**PhD External Examiner University of Hull**

Lorraine Gibson (Examiner)  
2012

**Royal Society of Chemistry Heritage Science (AMC) Sub-Committee (External organisation)**

Lorraine Gibson (Member)  
2012

**Plastic degradation: examination of emissions**

Lorraine Gibson (Host)

1 Oct 2011 → 20 Dec 2011

**Bridging the Gap - Analytical Investigations in Heritage Science**

Lorraine Gibson (Contributor)

Jun 2011

**Collection Informatics: What we can learn from air sampling**

Lorraine Gibson (Contributor)

Apr 2011

**Heritage Smells!**

Lorraine Gibson (Contributor)

Mar 2011

**Can the Science of Smell Inform Conservation Practice?**

Lorraine Gibson (Contributor)

Sept 2010

**The Thief Within**

Lorraine Gibson (Speaker)

Aug 2010

**Measurement and Removal of Air Pollutants**

Lorraine Gibson (Contributor)

May 2010

**9th International Conference in Indoor Air in Heritage and Historic Environments**

Lorraine Gibson (Participant)

21 Apr 2010 → 23 Apr 2010

**The Thief Within**

Lorraine Gibson (Contributor)

Feb 2010

**The Nigel J Seeley Memorial Lecture**

Lorraine Gibson (Contributor)

Jan 2010

**Volatile Emissions from Heritage Objects**

Lorraine Gibson (Contributor)

Jan 2010

**British Standards Institute (External organisation)**

Lorraine Gibson (Advisor)

2010 → 2011

**External assessor for new OU degree in Analytical Science**

Lorraine Gibson (External Examiner)

2010

**PhD Examiner University of Cardiff**

Lorraine Gibson (External Examiner)

2010



**PhD External Examiner University of Liverpool**

Lorraine Gibson (Examiner)

2010 → ...

**PhD external examiner Caledonian University**

Lorraine Gibson (External Examiner)

2010

**ROYAL SOCIETY OF CHEMISTRY (External organisation)**

Lorraine Gibson (Member)

2010 → 2012

**The 16th Conservation Science**

Lorraine Gibson (Invited speaker)

Nov 2009

**International Union of Pure and Applied Chemistry Congress**

Lorraine Gibson (Chair)

2009 → ...

**PhD External Examiner University of Manchester Science and Technology**

Lorraine Gibson (Examiner)

2009

**A Survey of VOCs in UK Library and Archive Stores**

Lorraine Gibson (Speaker)

17 Apr 2008 → 19 Apr 2008

**Groups and Regions Forum of the AD-RSC**

Lorraine Gibson (Chair)

2008

**ROYAL SOCIETY OF CHEMISTRY (External organisation)**

Lorraine Gibson (Chair)

2008 → ...

**ROYAL SOCIETY OF CHEMISTRY (External organisation)**

Lorraine Gibson (Advisor)

2007 → 2008

**7th International Conference in Indoor Air Quality in Heritage and Historic Environments**

Lorraine Gibson (Participant)

15 Nov 2006 → 16 Nov 2006

**EU COST D42 (External organisation)**

Lorraine Gibson (Member), John Havermans (Chair), Annemie Adriaens (Chair), Martina Griesser (Member), Rene van Grieken (Member), Jiri Smolik (Member), Morten Ryhl-Svendson (Member), Ivo Leito (Member), Istvan Kecskemeti (Member), Anne-Laurence Dupont (Member), Tunga Salthammer (Member), Michalis Lazaridis (Member), Susan Bioletti (Member), Jan Gunneweg (Member), Dario Camuffo (Member), JoAnne Cassar (Member), Ted Steemers (Member), Orhideja Grupce (Member), Terje Grontoft (Member), Tomasz Lojewski (Member), Paula Menino Homem (Member), Roxana Radvan (Member), Jozef Hanus (Member), Jana Kolar (Member), Marta Castillejo (Member), Katarina Malaga (Member), Stefan Wuelfert (Member) & Fusun Okyar (Member)

2006 → 2010

**PhD and MSc external examiner (University College Cork)**

Lorraine Gibson (External Examiner)  
2006 → 2017

**A collection of ceramics damaged by acetate salts: conservation and investigation into the causes**

Lorraine Gibson (Speaker), Lieve Harlsberghe (Speaker) & David Erdhart (Speaker)  
12 Sept 2005 → 16 Sept 2005

**Handheld sensors for indoor air pollutants**

Lorraine Gibson (Speaker)  
12 Sept 2005 → 16 Sept 2005

**Simple methods for the identification of acetate salts on museum objects**

Lorraine Gibson (Speaker), Lieve Halsberghe (Speaker), David Erdhart (Speaker) & Konrad Zhender (Speaker)  
12 Sept 2005 → 16 Sept 2005

**A Comparison of Diffusion Tube Monitors: Determination of Acetic and Formic Acid in Indoor Air, 6th IAQ meeting, Padova**

Lorraine Gibson (Speaker)  
10 Nov 2004 → 12 Nov 2004

**Development of New Materials as Indoor Air Pollutant Scavengers, Getty Conservation Institute, LA, USA**

Lorraine Gibson (Speaker)  
Apr 2004

**ROYAL SOCIETY OF CHEMISTRY (External organisation)**

Lorraine Gibson (Advisor)  
2004 → 2006

**Royal Society of Chemistry: Analytical Chemistry by Open Learning**

Lorraine Gibson (Member of programme committee)  
2004 → 2010

**Applications of Analytical Chemistry in Cultural Heritage, National Museum, Northern Ireland.**

Lorraine Gibson (Speaker)  
Oct 2002

**Monitoring Pollution in Museums - ICOM-CC Rio de Janeiro, Brazil**

Lorraine Gibson (Speaker)  
22 Sept 2002 → 27 Sept 2002

**Analytical Investigations in Conservation Science**

Lorraine Gibson (Speaker)  
12 Jul 2002 → 14 Jul 2002

**The Fight Against Indoor Air Pollution**

Lorraine Gibson (Speaker)  
8 Nov 2001 → 9 Nov 2001

**The Fight Against Indoor Air Pollution Damage, NMS, Copenhagen, Denmark**

Lorraine Gibson (Speaker)  
May 2001

### **What do the numbers mean?**

Lorraine Gibson (Speaker)

10 Jul 2000 → 12 Jul 2000

### **Formaldehyde Vapour Collection: A Laboratory Study**

Lorraine Gibson (Speaker)

26 Aug 1999 → 27 Aug 1999

### **Pollution Monitoring and Mitigation in Museums**

Lorraine Gibson (Organiser)

4 Jun 1999 → 24 Jun 1999

### **Standardisation: is it essential?**

Lorraine Gibson (Speaker)

17 Jun 1998 → 18 Jun 1998

### **Indoor Air Quality (IAQ) Conference (Event)**

Lorraine Gibson (Member), John Tetreault (Member), Morten Rhyll-Svendsen (Member), Cecily Grzywacz (Member), Agnes Brokerhof (Member) & David Thickett (Member)

1998 → 2021

## **Qualifications**

Doctor of Science, The determination of efflorescence on museum artefacts, University of Strathclyde  
Award Date: 1 Jan 1994

Bachelor of Science, Analytical studies of blackened earthenware fragments, University of Glasgow  
Award Date: 1 Jan 1991

... → 2013 Fellow of the Royal Society of Chemistry, FRSC

... → 2007 Fellow of the Higher Education Academy, FHEA

... → 1995 Member of the Royal Society of Chemistry, Chartered Chemist, MRSC CChem

## **Impacts**