

European Vacation Placements: Reports 2014

Below are reports on the Summer Placements provided by students who participated in the scheme in 2014.

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ETH, Zurich, Switzerland

Report 1

1. General

Placement Location: **ETH Zürich, Switzerland**

Arrival and Departure Dates: **30 June to 23 August**

No. of working days spent at Institution: **37**

2. Financial

Cost and method of return travel from the UK (£): **£135 flight to Zurich with Easyjet**

Total cost of daily travel to and from Institution (£): **£1.7 using monthly travel card**

Total cost of accommodation (say if provided free): **CHF 500 per month**

Value of Armourers & Brasiers/Alcan bursary: **£1165.25 (included Swiss student fee)**

Total received from College: **£400**

Total received from Institution (£): **£700 CHF 1100**

3. Accommodation

Accommodation address: **62 Meierwiesenstrasse, 8064 Zurich**

Type of Accommodation: **International Student rooms with shared bathrooms and kitchen**

Distance from Institution: **15 minutes by bus**

Quality of accommodation on a scale of 1 (low) to 10 (high): **8**

Quality of facilities on a scale of 1 (low) to 10 (high): **7 with one kitchen for the entire building it could get very crowded and messy**

Convenience of location on a scale of 1 (low) to 10 (high): **8**

4. Research Project

Title of Research Project: **Mechanical and Electrical Properties of “BrickWall” ALi films on polyimide substrate**

Written Report submitted to host institution: **Oral presentation to group and powerpoint submitted as well as written report**

Experimental Techniques used: **tensile testing, resistance measurements, 4 point resistivity, AFM**

Interest level of project on a scale of 1 (low) to 10 (high): **6**

Quality of support provided on a scale of 1 (low) to 10 (high): **7 – good support from mentor when she wasn't busy, which wasn't often**

Interaction with other researchers on a scale of 1 (low) to 10 (high): **4 - I spent some time helping with other researchers, but due to the nature of my project it was mostly solitary.**

Report 2

1. General

Placement Location: **ETH Zürich, Switzerland**

Arrival and Departure Dates: **24/06/2014 — 23/08/2014**

No. of working days spent at Institution: **40**

2. Financial

Cost and method of return travel from the UK (£): **£135**

Total cost of daily travel to and from Institution (£): **£120**

Total cost of accommodation (say if provided free): **£750**

Value of Armourers & Brasiers/Alcan bursary: **£1165**

Total received from College: **£300**

Total received from Institution (£): **£715**

3. Accommodation

Accommodation address: **Meierwiesenstrasse 62, 8064 Zürich**

Type of Accommodation: **Individual rooms, with shared bathrooms**

Distance from Institution: **20-25 minutes by bus**

Quality of accommodation on a scale of 1 (low) to 10 (high): **7**

Quality of facilities on a scale of 1 (low) to 10 (high): **8**

Convenience of location on a scale of 1 (low) to 10 (high): **6**

4. Research Project

Title of Research Project: **Copper Coating of Calcium Carbonate Particles (3 weeks), and Synthesis and Characterization of Copper Nitride Nanoparticles (5 weeks)**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **X-ray diffraction, scanning electron microscopy, EDX, inert atmosphere decomposition, wet chemical techniques, glove box, gas chromatograph coupled mass spectroscopy**

Interest level of project on a scale of 1 (low) to 10 (high): **10**

Quality of support provided on a scale of 1 (low) to 10 (high): **10**

Interaction with other researchers on a scale of 1 (low) to 10 (high): **8**

EPFL, Lausanne, Switzerland

Report 1

1. General

Placement Location: **EPF Lausanne**

Arrival and Departure Dates: **15th of July – 24nd of September**

No. of working days spent at Institution: **53**

2. Financial

Cost and method of return travel from the UK (£): **Flight, £68 one way. (I flew in from Singapore)**

Total cost of daily travel to and from Institution (£): **£ 64 (98 CHF)**

Total cost of accommodation (say if provided free): **£562 (880 CHF)**

Value of Armourers & Brasiers/Alcan bursary: **£450**

Total received from College: **£100**

Total received from Institution (£): **£2080 (3200 CHF)**

3. Accommodation

Accommodation address: **Accommodation 1 : 3 Chemin des Falaises, Lausanne (Student accommodation) Accommodation 2 : 13 Le Vieux Bourg, Denges/ (BnB/Colleague's Home)**

Type of Accommodation: **1: Single furnished small room, with a bathroom shared by two rooms
2: Two bedroom home with access to kitchen and bathroom**

Distance from Institution: **25 minutes by metro/ 10 minutes by bus**

Quality of accommodation on a scale of 1 (low) to 10 (high): **6/10**

Quality of facilities on a scale of 1 (low) to 10 (high): **8/10**

Convenience of location on a scale of 1 (low) to 10 (high): **8/8**

4. Research Project

Title of Research Project: **Investigating a family of Liquid Crystal capped Gold Nanoparticles via a thiol-for-OAm ligand exchange – Synthesis, Cleaning and Characterisation**

Written Report submitted to host institution: **Report and Presentation, yes.**

Experimental Techniques used: **TEM, NMR, Optical Microscopy, Synthetic Chemistry techniques including centrifugation, Soxhlet, Column Chromatography**

Interest level of project on a scale of 1 (low) to 10(high): **10**

Quality of support provided on a scale of 1 (low) to 10 (high): **10**

Interaction with other researchers on a scale of 1 (low) to 10 (high): **10**

Report 2

1. General

Placement Location: **EPF Lausanne**

Arrival and Departure Dates: **01.07.14 – 21.08.14**

No. of working days spent at Institution: **42**

2. Financial

Cost and method of return travel from the UK (£):**£330, Flights and train from Geneva**

Total cost of daily travel to and from Institution (£):**£0 (£115 paid for 1-year half-fare travel card for all local and regional travel)**

Total cost of accommodation (say if provided free): **Provided free**

Value of Armourers & Brasiers/Alcan bursary: **£550 (+£100)**

Total received from College: **£360**

Total received from Institution (£):**£195 (300 CHF)**

3. Accommodation

Accommodation address: **FMEL, Route Louis-Favre 4, 1024 ECUBLENS, Lausanne**

Type of Accommodation: **Set (main room with small kitchen area, ensuite)**

Distance from Institution: **Directly adjacent (5 min walk through campus to department)**

Quality of accommodation on a scale of 1 (low) to 10 (high): **8**

Quality of facilities on a scale of 1 (low) to 10 (high): **10**

Convenience of location on a scale of 1 (low) to 10 (high): **8**

4. Research Project

Title of Research Project: **Probing at the nanoscale the structure and properties of hard second phases in alloys and composites.**

Written Report submitted to host institution : **Yes**

Experimental Techniques used: **Heat treatment, metallographic sample preparation, SEM, carbon coating, electrochemical etching, compression testing.**

Interest level of project on a scale of 1 (low) to 10(high): **9**

Quality of support provided on a scale of 1 (low) to 10 (high): **9**

Interaction with other researchers on a scale of 1 (low) to 10 (high): **9**

EMPA, Thun, Switzerland

1. General

Placement Location: **EMPA Thun, Switzerland**

Arrival and Departure Dates: **Monday 30th June – Wednesday 3rd September**

No. of working days spent at Institution: **43**

2. Financial

Cost and method of return travel from the UK (£): **£135 (Just return flight and train to airport)**

Total cost of daily travel to and from Institution (£): **£0 (Bike at EMPA I could use)**

Total cost of accommodation (say if provided free): **£725**

Value of Armourers & Brasiers/Alcan bursary: **£0**

Total received from College: **£0**

Total received from Institution (£): **Approx. £2000 (net. after insurance/tax etc)**

3. Accommodation

Accommodation address: **6 Fasaneweg**

Type of Accommodation: **Flat (2 people)**

Distance from Institution: **4 km**

Quality of accommodation on a scale of 1 (low) to 10 (high): **10**

Quality of facilities on a scale of 1 (low) to 10 (high): **8**

Convenience of location on a scale of 1 (low) to 10 (high): **9**

4. Research Project

Title of Research Project: **A Study of Metal-Oxide-Metal Trilayer**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **Atomic XRD, SEM, ALD, Sputtering, Nano-indentation**

Interest level of project on a scale of 1 (low) to 10 (high): **9**

Quality of support provided on a scale of 1 (low) to 10 (high): **9**

Interaction with other researchers on a scale of 1 (low) to 10 (high): **9**

PSI, Villigen, Switzerland

1. General

Placement Location: **Paul Scherrer Institute, Switzerland**

Arrival and Departure Dates: **23/06/2014 to 30/08/2014**

No. of working days spent at Institution: **44**

2. Financial

Cost and method of return travel from the UK (£): **Flight from London 150£**

Total cost of daily travel to and from Institution (£): **Free (walk)**

Total cost of accommodation (say if provided free): **CHF 20 / day**

Value of Armourers & Brasiers/Alcan bursary: **£0**

Total received from College: **£0**

Total received from Institution (£): **1364£ per month (before local taxes)**

3. Accommodation

Accommodation address: **Guesthouse, Paul Scherrer Institute, Villigen, Switzerland.**

Type of Accommodation: **Shared room**

Distance from Institution: **On site**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **8**

Quality of facilities: on a scale of 1 (low) to 10 (high): **9**

Convenience of location: on a scale of 1 (low) to 10 (high): **7**

4. Research Project

Title of Research Project: **Digital Image Correlation and Biaxial Tensile Tests**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **Digital Image Correlation, Biaxial Tensile Testing, MATLAB**

Interest level of project: on a scale of 1 (low) to 10(high): **7**

Quality of support provided: on a scale of 1 (low) to 10 (high): **6**

Interaction with other researchers: on a scale of 1 (low) to 10 (high):**8**

University of Erlangen, Germany

Report 1

1. General

Placement Location: **Erlangen, Germany**

Arrival and Departure Dates: **01/07—26/08**

No. of working days spent at Institution: **38**

2. Financial

Cost and method of return travel from the UK (£):**Single flight journey to Nuremberg: 70.99**

Train journeys: 38.07

Total cost of daily travel to and from Institution (£): **None. Bicycle borrowed from Institution**

Total cost of accommodation (say if provided free): **Provided free by the institution**

Value of Armourers & Brasiers/Alcan bursary: **£ 725**

Total received from College: **£ 450**

Total received from Institution (£): **£ 0**

3. Accommodation

Accommodation address: **Hallerstraße 15, 91054 Buckenhof, Germany**

Type of Accommodation: **A residential house**

Distance from Institution: **3.4km**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **6**

Quality of facilities: on a scale of 1 (low) to 10 (high): **6**

Convenience of location: on a scale of 1 (low) to 10 (high): **6**

4. Research Project

Title of Research Project: **Investigation of the Altering Heat Treatment of two experimental Alloys in comparison to commercial CMSX-4**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **Cutting, grinding, polishing, heat treatment with furnace, SEM**

Interest level of project: on a scale of 1 (low) to 10(high): **8**

Quality of support provided: on a scale of 1 (low) to 10 (high): **10**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **9**

Report 2

1. General

Placement Location: **Erlangen, Germany**

Arrival and Departure Dates: **July 7th-September 14th**

No. of working days spent at Institution: **45**

2. Financial

Cost and method of return travel from the UK (£): **Flew from Milan after travelling in Italy, £75**

Total cost of daily travel to and from Institution (£): **£0**

Total cost of accommodation (say if provided free): **Provided free by the university**

Value of Armourers & Brasiers/Alcan bursary: **£725**

Total received from College: **£360**

Total received from Institution (£): **£0**

3. Accommodation

Accommodation address: **Hallerstraße 17, Buckenhof, Erlangen**

Type of Accommodation: **Room in a German couple's house**

Distance from Institution: **10 minutes by bike**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **5**

Quality of facilities: on a scale of 1 (low) to 10 (high): **5**

Convenience of location: on a scale of 1 (low) to 10 (high): **9**

4. Research Project

Title of Research Project: **The influence of Rhenium on Cobalt based Superalloys**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **Metallography, SEM, Nanoindentation, AFM, heat treatment**

Interest level of project: on a scale of 1 (low) to 10 (high): **7**

Quality of support provided : on a scale of 1 (low) to 10 (high): **10**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **9**

University of Goettingen, Germany

Report 1

1. General

Placement Location: **Goettingen, Germany**

Arrival and Departure Dates: **2nd August – 25th September**

No. of working days spent at Institution: **35**

2. Financial

Cost and method of return travel from the UK (£): **Flight, £135**

Total cost of daily travel to and from Institution (£): **Free (bicycle)**

Total cost of accommodation (say if provided free): **Free**

Value of Armourers & Brasiers/Alcan bursary: **£700**

Total received from College: **£150**

Total received from Institution (£): **£0**

3. Accommodation

Accommodation address: **Geiststraße 11S, 37073, Göttingen, Germany**

Type of Accommodation: **student house**

Distance from Institution: **3.6 km**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **4**

Quality of facilities: on a scale of 1 (low) to 10 (high): **8**

Convenience of location: on a scale of 1 (low) to 10 (high): **6**

4. Research Project

Title of Research Project: **Change in Glass Transition Temperature with Heating Rate**

Written Report submitted to host institution: **Presentation which I presented at institution seminar**
Experimental Techniques used: **SEM, Programmable power supply (for heating), XRD.**
Interest level of project: on a scale of 1 (low) to 10(high): **6**
Quality of support provided: on a scale of 1 (low) to 10 (high): **8**
Interaction with other researchers: on a scale of 1 (low) to 10 (high): **7**

TUHH, Hamburg, Germany

Report 1

1. General

Placement Location: **TUHH, Hamburg, Germany**
Arrival and Departure Dates: **30th July - 1st October 2014**
No. of working days spent at Institution: **42**

2. Financial

Cost and method of return travel from the UK(£):**Return flights from Edinburgh to Hamburg: £174**
Total cost of daily travel to and from Institution(£): **none, it was a 3-minute walk**
Total cost of accommodation (say if provided free): **free, provide by host**
Value of Armourers & Brasiers/Alcan bursary: **£725**
Total received from College: **£214.40**
Total received from Institution (£): **£0**

3. Accommodation

Accommodation address: **Kasernenstraße 5, Harburg, Hamburg**
Type of Accommodation: **Top floor (bedroom, bathroom, kitchenette) of a family home**
Distance from Institution: **10 metres(!)**
Quality of accommodation: on a scale of 1 (low) to 10 (high): **10**
Quality of facilities: on a scale of 1 (low) to 10 (high): **8**
Convenience of location: on a scale of 1 (low) to 10 (high): **10**

4. Research Project

Title of Research Project: **Quasi-static Uniaxial Compression Studies of Aerographite/Epoxy Composites.**
Written Report submitted to host institution: **yes, + presentation of report given**
Experimental Techniques used: **Epoxy preparation (mixing, degassing, curing), vacuum infiltration, SEM, 100kN compression testing, electrical resistance measurements, sputter deposition, TGA.**
Interest level of project: on a scale of 1 (low) to 10(high): **9**
Quality of support provided: on a scale of 1 (low) to 10 (high): **8**
Interaction with other researchers: on a scale of 1 (low) to 10 (high): **6**

Report 2

1. General

Address: **TUHH, Hamburg-Harburg, Germany**
Arrival and Departure Dates: **3rd July – 30th August**
No. of working days spent at the Institution: **40**

2. Financial

Cost and method of return travel from the UK (£): **Train and Plane, total cost=£150**
Total cost of daily travel to and from Institution (£): **£0**
Total cost of accommodation (say if provided free): **560 Euros**

Value of Armourers & Brasiers/Alcan bursary: **£765**

Total received from College: **£150**

Total received from Institution (£): **600 Euros**

3. Accommodation

Accommodation address: **Femerlingstrasse 4, D-21079 Hamburg**

Type of Accommodation: **Room in a flat**

Distance from Institution (km): **10 minutes walk**

Quality of accommodation: on scale of 1 (low) to 10 (high): **6**

Quality of facilities/social environment: on scale of 1 (low) to 10 (high): **6**

Convenience of location: on scale of 1 (low) to 10 (high): **7**

4. Research project

Title of Research Project: **The Fabrication of Body-Centred Cubic Photonic Crystals Using Patterned Substrates.**

Written Report submitted to Institute? **Yes**

Experimental Techniques used: **Horizontal self-assembly, SEM.**

Interest level of project: on scale of 1 (low) to 10 (high): **10**

Quality of support provided: on scale of 1 (low) to 10 (high): **10**

Interaction with other researchers: on scale of 1 (low) to 10 (high): **10**

MagIC, HZG-Geesthacht, Germany

1. General

Placement Location: **HZG, Geesthacht, Germany**

Arrival and Departure Dates: **16th June – 3rd October**

No. of working days spent at Institution: **40**

2. Financial

Cost and method of return travel from the UK (£): **Airplane, not directly flying to/from UK. Ryanair flies to Bremen for about 20 GBP per trip excluding hold luggage, and then if you get a 25 Railcard, all train tickets within Germany are discounted by 25%. The cost for a ticket from Bremen to Hamburg Bergedorf is then only 14.50 Euro, and you need to pay another 2.60 Euro to get to the guesthouse on Otto-Hahn Strasse 1.**

Total cost of daily travel to and from Institution (£): **£0**

Total cost of accommodation (say if provided free): **£220**

Value of Armourers & Brasiers/Alcan bursary: **£450**

Total received from College: **£250**

Total received from Institution (£): **€1000**

3. Accommodation

Accommodation address: **Otto-Hahn Straße 1, Geesthacht 21502, Deutschland**

Type of Accommodation **room at the HZG's Guesthouse.**

Distance from Institution: **10 minute walk**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **8**

Quality of facilities: on a scale of 1 (low) to 10 (high): **9**

Convenience of location: on a scale of 1 (low) to 10 (high): **5 – very near to HZG, but HZG is in the middle of nowhere with very bad transport links**

4. Research Project

Title of Research Project: **Deformation Modes in Magnesium**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **None**

Interest level of project: on a scale of 1 (low) to 10 (high): **1**

Quality of support provided: on a scale of 1 (low) to 10 (high): **7**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **1**

Rolls-Royce Deutschland, Germany

1. General

Placement Location: **Rolls-Royce Deutschland, Dahlewitz, nr. Berlin, Germany**

Arrival and Departure Dates: **4/7/14 to 14/9/14**

No. of working days spent at Institution: **50**

2. Financial

Cost and method of return travel from the UK (£): **£260 return flights from Bristol**

Total cost of daily travel to and from Institution (£): **72.50€ for monthly student/intern rail pass. In total this amounted to ~180€ (£142)**

Total cost of accommodation (say if provided free): **£991**

Value of Armourers & Brasiers/Alcan bursary: **£100**

Total received from College: **£260**

Total received from Institution (£): **2000€ (about £1570)**

3. Accommodation

Accommodation address: **2 Truseweg, Neukölln. Berlin 12059**

Type of Accommodation: **Spare room in a private apartment**

Distance from Institution: **1h20 with U-bahn, S-bahn and bus**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **9**

Quality of facilities: on a scale of 1 (low) to 10 (high): **6**

Convenience of location: on a scale of 1 (low) to 10 (high): **2 for institution, 10 for visiting Berlin**

4. Research project

Title of Research Project: **Lifing methods for a Nickel-based Superalloy**

Written Report submitted to Institute? **Yes**

Experimental Techniques used: **Finite Element Analysis**

Interest level of project: on scale of 1 (low) to 10 (high): **6**

Quality of support provided: on scale of 1 (low) to 10 (high): **8**

Interaction with other researchers: on scale of 1 (low) to 10 (high): **6**

Linde AG, Germany

1. General

Placement Location: **Linde AG, Unterschleissheim, near Munich, Germany**

Arrival and Departure Dates: **13.07.14-20.09.14**

No. of working days spent at Institution: **48**

2. Financial

Cost and method of return travel from the UK (£): **£280 return flight**

Total cost of daily travel to and from Institution (£): **£240 (€307 due to problems at first)**

Total cost of accommodation (say if provided free): **£780 (€500 a month)**

Value of Armourers & Brasiers/Alcan bursary: **£400**

Total received from College: **£450**

Total received from Institution (£): **£1365 (€1750)**

3. Accommodation

Accommodation address: **St. Veit Str 13C, 81673 Munich**

Type of Accommodation: **Shared Flat accomodation**

Distance from Institution: **50 min by public transport**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **6**

Quality of facilities: on a scale of 1 (low) to 10 (high): **5**

Convenience of location: on a scale of 1 (low) to 10 (high): **5**

4. Research project

Title of Research Project: **Colouration of Metal Powders under Controlled Atmospheres**

Written Report submitted to Institute? **Yes**

Experimental Techniques used: **Heat treatment, SEM, optical microscopy, Dew point measurements**

Interest level of project: on scale of 1 (low) to 10 (high): **7**

Quality of support provided: on scale of 1 (low) to 10 (high): **7**

Interaction with other researchers: on scale of 1 (low) to 10 (high): **7**

Max-Planck Institut für Eisenforschung, Düsseldorf, Germany

Report 1

1. General

Placement Location: **MPIE, Düsseldorf, Germany**

Arrival and Departure Dates: **Arrival: 27/06/2014; Departure: 02/09/2014**

No. of working days spent at Institution: **43**

2. Financial

Cost and method of return travel from the UK (£): **Transportation to airport: £56; Airfare: £95**

Total cost of daily travel to and from Institution (£): **Nil**

Total cost of accommodation (say if provided free): **£833**

Value of Armourers & Brasiers/Alcan bursary: **£ 100**

Total received from College: **Nil**

Total received from Institution (£): **£1094**

3. Accommodation

Accommodation address: **30 Augustrasse, Düsseldorf, Germany**

Type of Accommodation: **Shared flat**

Distance from Institution: **2 km**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **9**

Quality of facilities: on a scale of 1 (low) to 10 (high): **8**

Convenience of location: on a scale of 1 (low) to 10 (high): **8**

4. Research Project

Title of Research Project: **Microstructural Surface Properties**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **AFM, SEM, Confocal Microscopy, sample preparation, post-processing on computer software**

Interest level of project: on a scale of 1 (low) to 10(high): **6**

Quality of support provided: on a scale of 1 (low) to 10 (high): **9**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **8**

Report 2

5. General

Placement Location: **MPIE, Düsseldorf, Germany**

Arrival and Departure Dates: **30/06/2014 – 30/08/2014**

No. of working days spent at Institution: **43**

5. Financial

Cost and method of return travel from the UK (£): **81.6 pounds, plane**

Total cost of daily travel to and from Institution (£): **0 if walking, 5 Euros if taking tram**

Total cost of accommodation (say if provided free): **545 Euros per month**

Value of Armourers & Brasiers/Alcan bursary: **£100**

Total received from College: **£0**

Total received from Institution (£): **1600 Euros**

7. Accommodation

Accommodation address: **Ludenbergerstrasse 37**

Type of Accommodation: **Flat**

Distance from Institution: **30 minutes on foot**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **7**

Quality of facilities: on a scale of 1 (low) to 10 (high): **6**

Convenience of location: on a scale of 1 (low) to 10 (high): **6**

7. Research Project

Title of Research Project: **Investigations on Various Fe-Al Intermetallics**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **SEM, X-ray Diffraction, Martens Hardness test**

Interest level of project: on a scale of 1 (low) to 10(high): **4**

Quality of support provided : on a scale of 1 (low) to 10 (high): **7**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **8**

ESI, Leoben, Austria

Report 1

1. General

Placement Location: **ESI, Leoben**

Arrival and Departure Dates: **14th July – 6th Sept**

No. of working days spent at Institution: **40**

2. Financial

Cost and method of return travel from the UK (£): **Return flights: £180 Return Train/Bus from heathrow to Leicester: £50 approx**

Total cost of daily travel to and from Institution (£): **Free (Within walking distance)**

Total cost of accommodation (say if provided free): **£453.75**

Value of Armourers & Brasiers/Alcan bursary: **Nil**

Total received from College: **£250**

Total received from Institution (£): **£1906**

3. Accommodation

Accommodation address: **Roseggerstasse 13, flat 28, Leoben, Austria**

Type of Accommodation: **shared flat**

Distance from Institution: **10 minute walk**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **2**

Quality of facilities: on a scale of 1 (low) to 10 (high): **4**

Convenience of location: on a scale of 1 (low) to 10 (high): **9**

4. Research Project

Title of Research Project: **An investigation into the mechanical behaviour of a flexible Cu-PET thin film system**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **Optical microscopy, FIB, SEM, Tensile loading**

Interest level of project: on a scale of 1 (low) to 10 (high): **7**

Quality of support provided: on a scale of 1 (low) to 10 (high): **7**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **10**

Report 2

1. General

Placement Location: **ESI, Leoben**

Arrival and Departure Dates: **Arr. 14th July, Dep. 5th September**

No. of working days spent at Institution: **40**

2. Financial

Cost and method of return travel from the UK (£): **Return flights LHR to VIE: £182.35 with Austrian Airlines**

Total cost of daily travel to and from Institution (£): **Free**

Total cost of accommodation (say if provided free): **£610**

Value of Armourers & Brasiers/Alcan bursary: **Nil**

Total received from College: **£250**

Total received from Institution (£): **£1700 post tax**

3. Accommodation

Accommodation address: **Roseggerstasse 13, Leoben, Austria**

Type of Accommodation: **shared flat**

Distance from Institution: **7 minute walk**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **3**

Quality of facilities: on a scale of 1 (low) to 10 (high): **5**

Convenience of location: on a scale of 1 (low) to 10 (high): **9**

4. Research Project

Title of Research Project: **Hardness and thermal stability of Cu-Ag alloys produced by HPT**

Written Report submitted to host institution: **Yes**

Experimental Techniques used: **High Pressure Torsion (HPT), Vickers hardness testing, Optical microscopy, TEM (+ sample preparation for each)**

Interest level of project: on a scale of 1 (low) to 10 (high): **9**

Quality of support provided: on a scale of 1 (low) to 10 (high): **9**

Interaction with other researchers: on a scale of 1 (low) to 10 (high): **7**

TU Wien, Austria

5. General

Placement Location: **TU Wien, Vienna, Austria**

Arrival and Departure Dates: **30th June, 1st September**

No. of working days spent at Institution: **44**

6. Financial

Cost and method of return travel from the UK (£): **Flight, £180 return**

Total cost of daily travel to and from Institution (£): **Month travel card (all transport) ~£30**

Total cost of accommodation (say if provided free): **Free**

Value of Armourers & Brasiers/Alcan bursary: **£460**

Total received from College: **£200**

Total received from Institution (£): **£235**

7. Accommodation

Accommodation address: **Studentenhaus, Neustiftgasse 83, Wien 1070**

Type of Accommodation: **Studentenhaus – Halls of residence**

Distance from Institution: **25min walk, 10/15 min public transport**

Quality of accommodation: on a scale of 1 (low) to 10 (high): **8**

Quality of facilities: on a scale of 1 (low) to 10 (high): **9**

Convenience of location: on a scale of 1 (low) to 10 (high): **9**

8. Research project

Title of Research Project: **In-situ Solidification Process of the B206 Aluminium Alloy**

Written Report submitted to Institute? **Yes**

Experimental Techniques used: **None – theoretical/analytical placement. Used various computer programs, for example ImageJ, Avizo, OriginPro.**

Interest level of project: on scale of 1 (low) to 10 (high): **9**

Quality of support provided: on scale of 1 (low) to 10 (high): **10**

Interaction with other researchers: on scale of 1 (low) to 10 (high): **10**