**FAMOS Progress Meeting Presentations**

**Citation: author/title/date/meeting/venue**

J.J. Wilkinson, J. Blundy, M. Jackson, D. Smith/What is Famos? Work Package Summaries/ 05.05.2017/FAMOS Kick-off meeting/NHM, London

J.P. Richards/Making an Economic Porphyry Cu Deposit: What are the Odds?/ 05.05.2017/FAMOS Kick-off meeting/NHM, London

P. Hollings/Igneous petrology and porphyry mineralization: examples from Chile and the Philippines/05.05.2017/FAMOS Kick-off meeting/NHM, London

R. Loucks/Applications of Zircon Chemistry to Mineral Exploration/02.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

J. Blundy/FAMOS Work Package 2 Experimental Petrology/02.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

B. Tattitch/The Fate of Cl During Degassing of Evolving Arc Magmas/02.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

B. Wood/Experimental measurements of chalcophile element behaviour in igneous systems: principles and perspectives/02.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

M. Jackson/Reactive flow in crustal mush reservoirs/02.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

A. Rust/Moving on up – melt lenses and volatiles in mushes/02.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

J. Pinnick/NGDC Data Management Planning/02.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

C. Chelle-Michou/Amphibole and apatite ‘‘volatilemeters’’: and mass balance constraints on the formation of PCDs/02.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

J.J. Wilkinson/Work Package 1: The Rock Record/03.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

F. Jenner/Fractionaton of chalcophile elements during ‘average’ crust formation/03.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

B. Williamson/Extracting and focusing fluids, and the barren comparator/03.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

M. Loader/Mineral Indicators and Fertility Footprints/03.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

R. Sievwright/Using mineral chemistry to interpret magmatic evolution of porphyry copper forming magmas/03.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

I. MacDonald/Chalcophile metal concentrations in deep arc sulphides from Kohistan/03.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

D. Smith/FAMOS WP4 Synthesis, Proxies & Application/03.11.2017/FAMOS First Progress meeting/Engineer’s House, Bristol

J.Thompson/Porphyry deposit – questions that bother me/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

J.J. Wilkinson/Introductory Remarks/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

C.Reekie/Crustal thickness and chalcophile element enrichment/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

F.Jenner/FAMOS Update: Open University/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

B.Williamson/WP1.2.3 – The barren compactor: The Japan Arc/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

S.Large/WP1.2: The intrusive rocks suite in the Los Bronces district/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

M.Loader/The magmatic evolution of a porphyry district: Evidence from the Fortuna Complex and Chuquicamata/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

A.Miles/What do magmatic zircons really record?/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

C.Petrone, J.Lissenberg/WP1.1.4 The Mafic Trigger/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

B.Williamson/WP1.1.5 Gate 5: Extracting and focussing fluids/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

L.Carter/Exsolution depth and migration pathways of mineralising fluids in porphyry deposit-forming magmatic systems/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

M.Jackson/Melt Segregation in mush reservoirs/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

A.Rust/How gravitationally stable are melt lenses +/- volatile accumulations in mush?/ 14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

L.Melekhova/Arc volcanism – field observations and experimental constrains on magma evolution, Lesser Antilles/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

J.Blundy/Magmatic evolution in mush-dominated systems/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

B.Wood/The S2- to S6+ transition in silicate melts: its dependence on fO2, temperature and composition/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

D.Holwell/The sulphide trap: insights from Kohistan and Ivrea/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

D.Smith/Metal transfer efficiency and the whole rock record/14.05.2018/FAMOS Second Progress meeting/College Court, Leicester

J.J. Wilkinson/Introductory Remarks/05.11.2018/FAMOS Third Progress meeting/Imperial College, London

J.Gilbertson/An Industry Perspective. What makes for an Economic Porphyry System? An example from the Cascabel Project, Ecuador/05.11.2018/FAMOS Third Progress meeting/Imperial College, London

J.Pearce/Productive and Unproductive Arc Magmatism in the El Salvador Porphyry Copper District, Chile/05.11.2018/FAMOS Third Progress meeting/Imperial College, London

T.Barry, T.Sheldrick, C.Gan/A petrogenetic look at post-subduction magmatism across East Asia during the Mesozoic, and its implications for ore development/05.11.2018/FAMOS Third Progress meeting/Imperial College, London

J.Blundy/Work Package 2: Experimental Petrology/05.11.2018/FAMOS Third Progress meeting/Imperial College, London

J.Blundy/Mount St. Helens, magmatic interaction with sub-volcanic brines/05.11.2018/FAMOS Third Progress meeting/Imperial College, London

F.Jenner/Progress update: emerging trends, consortium input/05.11.2018/FAMOS Third Progress meeting/Imperial College, London

M.Jackson/WP3: Numerical modelling ‘5 min update’ and Physical and chemical processes in magma reservoirs and controls on metal-rich fluid formation and migration/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

A.Rust/Experiments and theory on large-scale instabilities/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

A.Coclite/Transport and Adhesion Mechanics of Rigid/Deformable Crystal and bubble in narrow pores/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

E.Melekhova/Crustal differentiation in the Lesser Antilles/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

M.Loader/Magmatic-hydrothermal processes in porphyry Cu deposit as revealed by apatite chemistry/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

E.Brugge/Using apatite to understand porphyry systems/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

S.Large/FAMOS at Los Bronces. Zircon geochemistry and geochronology/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

O.Higgins/Behaviour of metals and volatiles during protracted magma differentiation from the deep to upper crust/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

D.Smith/WP4: Data mining and global mapping of geochemical features/06.11.2018/FAMOS Third Progress meeting/Imperial College, London

C.McCuaig/Mineral systems to exploration systems to research roadmaps with special reference to PCD’s/12.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

J.Wilkinson/Introduction, Project Milestones and WP1 “5 min update”/13.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

S.Large/Integrating high-precision analytical data and thermal modelling at Bingham Canyon – Reconstructing the evolution of fertile magma reservoirs/13.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

Y.Buret/Insights into the evolution of a porphyry forming magma chamber from coeval explosive volcanism at Bajo de la Alumbrera/13.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

L.Carter/The timing of fluid exsolution and migration in porphyry systems – new geochronology from the Yerington District, Nevada/13.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

R.Armstrong/GATE 5 – Extracting and focusing fluids: lessons from the Ordubad Region, Azerbaijan/13.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

D.Holwell/Fertilisation of porphyry magmas by Cu-Au sulphide melt mobilisation in the lower crust/13.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

J.Lissenberg/Magmatic recharge at Mount Pinatubo/13.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

D.Butters/The fidelity of zircon-hosted melt inclusions/13.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

J.Blundy/WP2 “5 min update” plus Redox controls on the partitioning of FE-Mg-Mn between olivine and melt/14.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

L.Melekhova/Hydrous basalts: deep phase relations and trace element partitioning/14.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

M.Jackson/WP3 “5 min update”/ 14.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

A.Rust/Mushes and melt pathways/14.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

C.Booth/Chemical differentiation, magma transport and formation of multiple mush reservoirs/14.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

S.Large/FAMOS at Los Bronces – Progress on the intrusive rock suite and sampling of the volcanic sequences/14.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

J.Wilkinson/Porphyry ore fluids – What we (think we) know/14.05.2019/FAMOS Fourth Progress meeting/Chartridge Lodge, Chesham

J.Wilkinson/Introduction and WP1 “5 min update”/04.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

D.Smith/Silicate frameworks for porphyry systems/04.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

C.Petrone/Magmatic recharge during effusive and explosive activity at Popocatépetl volcano (Mexico) /04.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

S.Large/Work at the Rio Blanco-Los Bronces case study – an update/04.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

J.Blundy/WP2 – experimental petrology/04.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

E.Melekhova/Syn- and post-magmatic processes and role of fluid in elements transfer/04.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

F.Jenner/Behaviour of the chalcophile elements during depletion and fertilization of the mantle/04.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

T.Knott/Fertilisation of porphyry magmas by Cu-Au sulphide melt mobilisation in the lower crust/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

I.McDonald/The sulphide trap in barren arcs/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

E.Brugge/Zircon-hosted apatitie inclusions: records of Sr, Cl and S evolution/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

C.Nathwani/Apatitie tracks melt evolution and metallogenic fertility in arc magmas/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

L.Carter/Yerington District, Nevada: New Petrogeochronology/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

T.Matthews/Titanite petrology and chemistry from the Strontian Igneous Comples, Scotland/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

E.Marquis/pXRF for Porphyries “The good, the bad and the ugly…” Preliminary Results/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

M.Jackson/WP3: Numerical modelling update. Physical and chemical processes in magma reservoirs and controls on metal-rich fluid formation and migration/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

C.Booth/Controls on frequency and volume of caldera forming eruptions, with an example of Santorini/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

H.Hu/Numerical modelling of two-phase flow for magmatic process/05.11.2019/FAMOS Fifth Progress meeting/College Court, Leicester

J.Wilkinson/Introduction, Project Milestones and WP1 “5 min update”/11.05.2020/FAMOS Sixth Progress meeting/Online

S.Large/Petrochronology resolves the multi-Myr crustal scale magmatic evolution of an arc segment resulting in porphyry copper formation/11.05.2020/FAMOS Sixth Progress meeting/Online

J.Blundy/Redox state and volatile-degassing behaviour of olivine-hosted melt inclusions from

Fuego Volcano, Guatemala and WP2 Update/11.05.2020/FAMOS Sixth Progress meeting/Online

E.Melekhova/Trace element partitioning between minerals and melts during differentiation of mantle-derived hydrous basalts/11.05.2020/FAMOS Sixth Progress meeting/Online

C.Contreras/Modelling fluids in crystal mush systems at the pore-to-crystal scale/11.05.2020/FAMOS Sixth Progress meeting/Online

M.Jackson/WP3 Update/11.05.2020/FAMOS Sixth Progress meeting/Online

H.Hu/Results from a new 1D magma model and progress on building 3D model/11.05.2020/FAMOS Sixth Progress meeting/Online

D.Smith/REE Patterns and Fertility and WP4 Update/11.05.2020/FAMOS Sixth Progress meeting/Online

F.Jenner/Elevated magma fluxes deliver high-Cu magmas to the upper crust/11.05.2020/FAMOS Sixth Progress meeting/Online

C.Nathwani/Petrogenesis and zircon petrochronology of the Yarabamba batholith, Southern Peru, that culminated in the formation of giant porphyry Cu-Mo deposits/11.05.2020/FAMOS Sixth Progress meeting/Online

R.Seltmann/What can textures tell about magma crystallization and fluid pathways in ore-bearing shallow felsic intrusions?/11.05.2020/FAMOS Sixth Progress meeting/Online

A.Miles & G.Stonadge/Fieldwork report – Philippines/11.05.2020/FAMOS Sixth Progress meeting/Online

J.Wilkinson/Introduction, Project Milestones and WP1 “5 min update”/02.11.2020/FAMOS Seventh Progress meeting/Online

S.Large/Progress report Work Package 2.1: Accessory mineral work at Los Bronces /02.11.2020/FAMOS Sevent Progress meeting/Online

J.Blundy/Melt inclusions from Vanua Lava, Vanuatu arc and WP2 Update/02.11.2020/FAMOS Seventh Progress meeting/Online

E.Melekhova/Phase relationship of water saturated high-Al2O3 basalt /02.11.2020/FAMOS Seventh Progress meeting/Online

B.Wood/Chlorine dissolution in silicate melts/02.11.2020/FAMOS Seventh Progress meeting/Online

O.Jagoutz/Keynote RICH and FAMOS: A tale of two melting regimes and their influence on copper deposits/FAMOS Seventh Progress meeting/Online

M.Jackson/WP3 Update/03.11.2020/FAMOS Seventh Progress meeting/Online

H.Hu/The effect of reactive flow on melt fraction change and chemical differentiation in a magma reservoir/03.11.2020/FAMOS Seventh Progress meeting/Online

C.Contreras/The role of the pore topology on the permeability and late crystallization of magmas /03.11.2020/FAMOS Seventh Progress meeting/Online

E.Bunker/The Spence Porphyry Copper Deposit, Northern Chile: Geological Framework and Zircon Petrochronology/03.11.2020/FAMOS Seventh Progress meeting/Online

D.Smith/WP4 Update/03.11.2020/FAMOS Seventh Progress meeting/Online

C.Nathwani/Classifying metallogenic fertility in arc rocks using supervised machine learning techniques and petrogenetic implications for porphyry copper deposit formation/03.11.2020/FAMOS Seventh Progress meeting/Online

J.Wilkinson/Introduction, Project Milestones/10.05.2021/FAMOS Eighth Progress meeting/Online

J.Blundy/WP2 Update/10.05.2021/FAMOS Eighth Progress meeting/Online

J.Blundy/Chlorine partitioning between hydrous fluids and melt as a function of pressure and melt and fluid composition/10.05.2021/FAMOS Eighth Progress meeting/Online

E.Melekhova/Chlorine and sulfur partitioning between hydrous fluid and silicate melt at lower crustal pressures/10.05.2021/FAMOS Eighth Progress meeting/Online

B.Wood/Compositional effects on Cl and S solubility in silicate melts/10.05.2021/FAMOS Eighth Progress meeting/Online

T.Bailey/Megalith by Mechanimal – A Theatre project exploring mining and copper/10.05.2021/FAMOS Eighth Progress meeting/Online

A.Pacey/Porphyry Cu Fertility: An Industry Perspective/11.05.2021/FAMOS Eighth Progress meeting/Online

J.Wilkinson/WP1 Update/11.05.2021/FAMOS Eighth Progress meeting/Online

S.Large/Volatile inventories recorded by apatite from the San Francisco Batholith and the porphyry intrusions at Rio Blanco-Los Bronces/11.05.2021/FAMOS Eighth Progress meeting/Online

L.Carter/Abrupt switch in hydrous magmatic plumbing to tap porphyry copper-forming magmas/11.05.2021/FAMOS Eighth Progress meeting/Online

B.Williamson/Update on the plagioclase discriminator/11.05.2021/FAMOS Eighth Progress meeting/Online

M.Jackson/WP3 Update/11.05.2021/FAMOS Eighth Progress meeting/Online

H.Hu/Challenges in modelling 3D magma systems/11.05.2021/FAMOS Eighth Progress meeting/Online

C.Contreras/Perspectives on Magma and Fluid Mobilization/11.05.2021/FAMOS Eighth Progress meeting/Online

D.Smith/WP4 - Subduction vs Post-subduction for porphyries/11.05.2021/FAMOS Eighth Progress meeting/Online

J.Wilkinson/WP1 Update and Introductory remarks/20.01.2022/FAMOS Ninth Progress meeting/Online

S.Large/Whole-rock isotope tracers and Sc-in-zircon of the Rio Blanco-Los Bronces rock suite/20.01.2022/FAMOS Ninth Progress meeting/Online

C.Nathwani/Apatite evidence for a degassing crystal-rich magma reservoir beneath porphyry copper deposits/20.01.2022/FAMOS Ninth Progress meeting/Online

G.Stonadge/Halogen and Sulphur Evolution from Apatite in Porphyry-like Volcanic Systems, West Luzon Arc, Philippines/20.01.2022/FAMOS Ninth Progress meeting/Online

J.Blundy/WP2 Update and Chemical differentiation by percolative reactive flow in arc crust/20.01.2022/FAMOS Ninth Progress meeting/Online

B.Kunz/The role of metamorphic micas for critical metals release during crustal melting/20.01.2022/FAMOS Ninth Progress meeting/Online

M.Jackson/WP3 Update/20.01.2022/FAMOS Ninth Progress meeting/Online

D.Smith/WP4 Update/20.01.2022/FAMOS Ninth Progress meeting/Online

J.Wilkinson/Introduction, Project Milestones and WP1 Update/24.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

M.Loader/Controls on the magnitude of Ce anomalies in zircon/24.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

C.Nathwani/Automated mineral texture classification using deep convolutional neural networks: application to zircons from porphyry copper deposits/24.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

J.Lissenberg/Tracking mafic recharge using silicate mineral profiles​/24.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

S.Tapster/An extended record of zircon crystallisation timescales in Andean porphyry copper deposits​/24.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

D.Butters/Transcrustal ascent of porphyry-forming magmas revealed by zircon-hosted melt inclusions​/24.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

L.Carter/Textural indicators of mineralisation potential in porphyry magmatic systems – A framework from the archetypal Yerington district, Nevada /24.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

J.Blundy/WP2 Update and CHOMPI Update/25.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

C.Contreras Hildago/The role of crystal textures in the permeability of mush systems/25.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

H.Hu/Modelling two-phase and three-phase magma reservoirs/25.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

C.Booth/The role of mush reservoir processes on the source, size, and frequency of large-scale silicic eruptions/25.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol

J.Wilkinson/WP4 Update – Tool developments and blind testing/25.03.2022/FAMOS Tenth Progress meeting/ Engineer’s House, Bristol