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European Current Research on Fluid Inclusions (ECROFI X)—Introduction

THE papers published in this special issue of *Mineralogical Magazine* represent a selection of the 82 oral and poster presentations at the tenth biennial meeting on 'European Current Research on Fluid Inclusions' held at Imperial College, London, over the period 6–8 April 1989 (see the conference abstracts volume for details of all the contributions given).

The ECROFI meetings, whilst often linked to the national mineralogical societies of the host country, remain autonomous and informal affairs. Most importantly, they provide an open forum for fluid-inclusion researchers from different disciplines within the Earth Sciences to come together and debate, comment on, and discuss the nature and rôle of the fluid phase in geological processes.

This issue of the *Magazine* also celebrates the 10th 'anniversary' of ECROFI. It is now over twenty years since H. A. Stalder, G. Deicha, and W. Wimmenauer organized the first meeting in Bern, Switzerland, in September 1969, with publication of the proceedings in a special issue of *Schweizerische Mineralogische und Mitteilungen* (Vol. 50, no. 1, 1970). As Tony Stalder pointed out in his introduction, the first meeting attracted 49 participants who presented 20 papers and 3 films. It is a credit to these 'founders' and their colleagues, several of whom were present at ECROFI X, that these meetings continue to thrive and attract participants not only from Europe but as far afield as Africa, China, the Ameri-

cas and Australasia. The number of registrants and papers presented at the last three meetings, Gottingen (1985), Oporto (1987) and London (1989)*, has more than trebled since their inception at Bern. The success of ECROFI is reflected in the recent series of Pan American Conferences on Research on Fluid Inclusions (PACROFI) inaugurated in Socorro, New Mexico, in 1986 and followed by PACROFI 2 in Blacksburg, Virginia, in 1988.

The papers arising from the ECROFI X meeting, and contained within this issue, are primarily concerned with the application of fluid-inclusion studies to petrogenetic and ore genetic processes, rather than with analytical techniques and theoretical considerations. The wide range of geological environments to which fluid-inclusion studies have been applied, from the deep crust and upper mantle to the surficial and near-surface environments, mirrors, the extent to which fluid-inclusion research has evolved and diversified over the past 20 years. Traditional links with hydrothermal mineral deposits, however, are still very much in evidence, with nearly half the contributions in this issue concerned with either Pb–Cu–Zn–CaF₂ or shear-zone-hosted gold deposits (the latter reflecting current economic and exploration interest).

The three papers dealing with the characteristics and significance of liquid hydrocarbon-bearing inclusions in low-temperature mineral phases illustrate the potential for applying fluid-inclusion techniques to problems of petroleum genesis and migration.

Referees

The editors of this issue of *Mineralogical Magazine* are very grateful to the following individuals

* The next meeting, ECROFI XI, will take place on 10–12 April 1991 in Florence, Italy. For details contact:

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and others not mentioned, who have reviewed the papers.

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For convenience the papers have been organized under three headings—the metamorphic/magmatic environment; the ore environment; and low-temperature, diagenetic and surficial environments. Such divisions, however, are somewhat arbitrary in many instances.

We have avoided exercising editorial discretion

in standardising abbreviations used for microthermometric measurements and phase changes. This is clearly a problem that needs to be addressed by the whole fluid-inclusion community at some future date. At present the debate is still alive and far from resolved. Many authors have adopted the abbreviations utilised in recent issues of *Fluid Inclusion Abstracts* (Eds., Roedder, E. and Kozlowski, A.; Ann Arbor, Michigan, Press). Others have chosen alternatives.

We would like to take this opportunity to express our sincere thanks to all those colleagues and friends who helped to organize the meeting, collate, review and edit the abstract volume and the papers in this issue. In particular we are indebted to the Mineralogical Society for agreeing to publish these papers; to Dr Andrew Clark, Principal Editor of the Magazine, and to Ms Helen Smith and Mr Kevin Murphy, Editorial Assistants, for their invaluable assistance and support.

Finally we gratefully acknowledge the financial assistance of British Gas plc in contributing to the success of ECROFI X.

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