Preface

Since the begining of the space processing interests in 1950's every effort has been made to understand the processes hampered by the convection. The skylab experiments on solidification and crystal growth were the first which produced exciting results. This encouraged the researchers of this area and their outlook for future applications in the field. It is well proven now that in absence of gravity, one can escape the undesirable effects of gravity driven forces and utilize the ultra vacuum environment. With the availability of space shuttles one can achieve these conditions several days. Space station will enhance this capacity up to months and years. In the area of Materials Processing NASA has supported experiments in which key processing parameters have been studied, attempts have been made to achieve the upper limit of properties and attempts have been made to prepare the materials in space.

The present proceeding is the contribution of the physicists, chemists, fluid dynamists and materials scientists and engineers working in the area of space processing. The papers of this proceeding can be devided into three groups; (A) directly addressing microgravity, (B) microgravity by implication and (C) Studies on materials. The proceeding is very interesting because authors have presented papers dealing all the aspects of materials processing in space.

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N.B. Singh
V. Laxmanan
E.W. Collings

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