

editorial

On the occasion of the birth of a new journal the editors are expected to predict a most promising future for the fortunes of the new enterprise. The reader should not expect any radical departure from this practice. The only reason for starting a new journal is the sincere belief that there is a need for one more publication, that sufficient number of readers will find something in the pages of the journal that is not now available to them.

Magnetic separation is not a new field. Some form of it has been in use since the 19th century. But for a long time, the major application was to the separation of ferromagnetic materials, and only for relatively large chunks of material. But the art and the science of magnetic separation has advanced over the years. The recognition that an increase in the magnetic field gradients made possible the separation of less strongly magnetic particles, and smaller particles, led to the design of magnetic filters and separators that took advantage of these insights. Around 1970, the term "high gradient magnetic separation" (HGMS) was coined when steel wool fibers were first used as collection sites in magnetic separators. The development of this type of filter in a way revolutionized magnetic filters. The forces that became available in the separation process could be increased by several orders of magnitude. Suddenly, interesting and fruitful science and engineering could be

applied in a previously rather mundane field. It became a fertile research area for scientists and engineers in diverse fields of endeavor. The more scholarly papers dealing with the basic theory and the corroborating experiments on magnetic filters that remove, for instance, nonmagnetic particles by means of magnetic forces have found a home in such eminent journals as the IEEE Transactions on Magnetics and the Journal of Applied Physics, to name just a few. But there has been no single journal to which the reader could go to find applications orientated papers, state of the art papers, or a review of how and why it is indeed possible to use magnetic forces to filter monmagnetic particles. Occasionally, there are conference proceedings that cover such topics but there is room for more regular coverage and for making available individual contributions, reviews of patents, news items, of people and of separators, and what have you, dealing with what many of us consider an exciting "new" area. The flavour of the journal is in the pages that follow, in this and subsequent issues. It is what you, the contributors and the readers, will make of it. Your contributions, and also your critisisms and encouragements will help to shape the journal. Read on . . .