



Editorial

We receive notices of conferences and symposia on the subject of “Advanced Materials” almost every week from all corners of the world—from the USA, from Europe, Korea, southern Asia, Pakistan, Uzbekistan, Russia, and more.

We like to think that our ASM journal publishes some of the best archival technical information on advanced materials. We attempt to review the information carefully because we feel an obligation to the readers to provide information/data that have some degree of archival value and to disseminate that information as quickly as possible.

This obligation is a humbling responsibility when we pause for a moment and think about advanced materials throughout history.

We learn from our history books that the earliest advanced material may have been fired pottery—first used by the Jomon people near Kyushu, Japan, in about the year 11,000 B.C. Now, they certainly didn’t have journals around, but they, just like every other person who has ever developed an advanced material, saw that their new material had some property that was advantageous if compared to the materials that were available. For one thing, it held water a lot better than the reed baskets that were in prevalent use.

As metallurgists, we know that the fired pottery held promise for the future as crucible materials for metal casting (casting operations that we would come to call the Bronze Age, but that was much later).

I think that the heart and core of an advanced material is that it, at the time it is invented, provides some property that is advantageous (an improvement) over the current “state of the art” material. The same theme runs through history when we examine woven fabrics, paper, copper, bronze, iron, mortar and cement, gun powder, printing alloys, and the virtual host of new polymers and ceramics that seem to spring up out of nowhere every month.

There is one advanced material that is my personal favorite and has been ever since my days in school. Now, don’t laugh. My favorite advanced material from the 1800s is the ideal gas!

We certainly call upon its properties continuously in metallurgical thermodynamics and base our entire foundation of fugacity and the related gas-metal equilibria on the idea of the ideal gas.

Maybe our readers have different favorites. We would love to learn about them. Just write or fax me at (your international access)-92-5372-71880. You may also contact me by e-mail:

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Let me know if your name can be used in future issues.



John R. Ogren