***Dr. R.O.Loutfy, and Dr. Alexander Moravsky***

***MER Corporation, Tucson Arizona USA***

# *"Commercial Prospective for C-MAT"*

The challenge for carbon nanotubes so far has been capturing their unique properties in real world applications. In particular, applications have been slowed by the lack of an economical method to produce large-area dispersible carbon nanotubes with good uniformity. MER Corporation has developed a method to produce large-area, uniformly-dispersed double-wall nanotubes (DWNT). Further, MER production process can easily convert the DWNT into fibrous mats (C-Mats) that resemble non-woven fabrics. These mats are ideal for high performance filters since they have very small pores. MER's *C*-Mats are a revolutionary way to harness properties of carbon nanotubes without the necessity to separate or align them. MER's proprietary manufacturing technique produces the *C*-Mat directly from the reactor. The *C*-Mat is ready for use as a component in a number of exciting applications, including: **Filtration media** such as bio-filters for use in liquids and gases for applications ranging from drug manufacturing to water purification to gas separation, **Composite materials** showing exceptionally high-strength and lightweight structure materials for aerospace and military applications, and **conductive flexible films** for electrical and thermal management applications.

The value proposition for C-Mats as new-generation ultra-high performance filter elements, and as nano-reinforcement materials with dramatically higher isotropic mechanical properties with exceptional elongation will be addressed.