

**TECHNOLOGY READINESS LEVEL: 3**

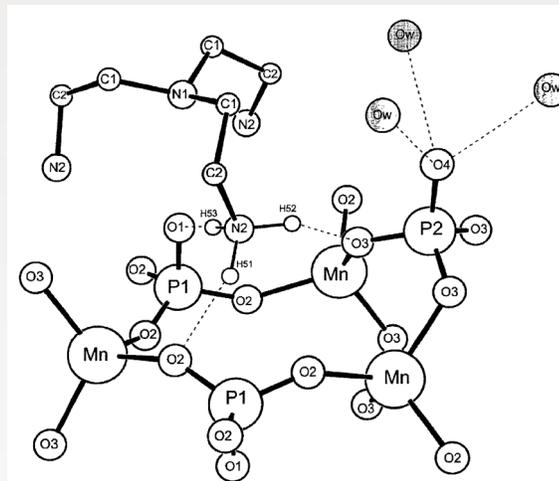
CONCEPTS HAVE BEEN EXPERIMENTALLY DEMONSTRATED.

**US PATENT # 6,767,469**

**# 6,777,568**

## TECHNOLOGY SUMMARY

Traditionally, organic polar substance separations, especially chemically related polar substance separations, have been very difficult to achieve. Sandia has developed a novel separations media using a crystalline manganese phosphate composition which can be used to separate multiple organic polar substances based the degree of branching, location of the polar group, or the length of the carbon chain.



## POTENTIAL APPLICATIONS

- Pharmaceutical Processing
- Ultra High Purity Chemical Processing
- Wastewater treatment

## TECHNOLOGICAL BENEFITS

- Multiple Types of Separations are achieved according to degree of branching/linearity, location of polar group, etc.
- Wide Temperature & pH Range: Operates between pH 3.5-9.5 in aqueous solutions and temperatures up to 225C for inert atmospheres
- Easily Facilitated Separations: Separations are induced simply through contact with the separation media even at room temperature

## TECHNOLOGY INQUIRY?

For more information or licensing opportunities contact us at

[ip@sandia.gov](mailto:ip@sandia.gov)

Refer to SD # 7189 & # 7041

or visit

<https://ip.sandia.gov>