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Effective Scale-up of Functionalised Silicas

Using a specially adapted Asynt 20-litre ReactoMate[®] reactor system - PhosphonicS Ltd. (Abingdon, UK) has improved turnaround time and batch-to-batch efficiency for scaling-up production of its range of functionalised silicas.

Using proprietary immobilisation technology, PhosphonicS Ltd. has developed a range of functionalised silicas for pharmaceutical purification and heterogeneous catalysis operations. The materials enable metal residue levels in drug substances (APIs) to be reduced to very low, regulated levels and precious metals to be effectively scavenged from spent catalysis reactions.

Michael Suggate, Laboratory Production Manager at PhosphonicS Ltd. commented "Traditionally our scientists relied upon 5-litre heating mantles to scale-up production of our functionalised silicas from tens of grams to initial kilo quantities. However this technology suffered in terms of the initial scale-up speed we desired". He added "Implementing the Asynt ReactoMate system has given us the benefits of greater comparison to pilot scale chemistry, better heat and mass transfer and far greater control than heating mantles. The unique stand that the ReactoMate reactor sits on allows for complete access to the filter port and the adjustable height allows us to filter our solids with far greater control (under gravity) than by lifting and pouring from large round bottomed flasks".



For further information on ReactoMate reactor systems please contact Asynt (+44-1638-781709 / sales@asynt.com) or visit www.asynt.com/product_view.php?ProductID=53. For further information on PhosphonicS Ltd. and its range of innovative functionalised silica systems please visit www.phosphonics.com.

Asynt is a leading supplier of affordable products, consumables and services for chemists in industry and academia. With staff of trained chemists - Asynt is able to draw upon this in-depth applications knowledge to provide a high level of customer support for its DrySyn Heating Blocks, Controlled Lab Reactors, Synthesis Tools, Evaporators, Circulators, Temperature Control Systems, Vacuum Pumps and Laboratory Safety Equipment.