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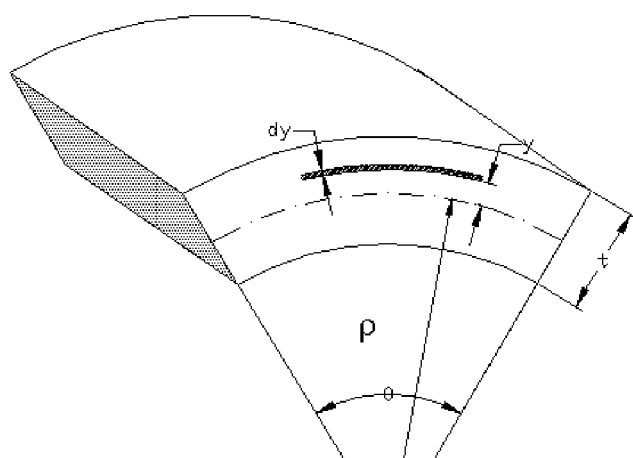


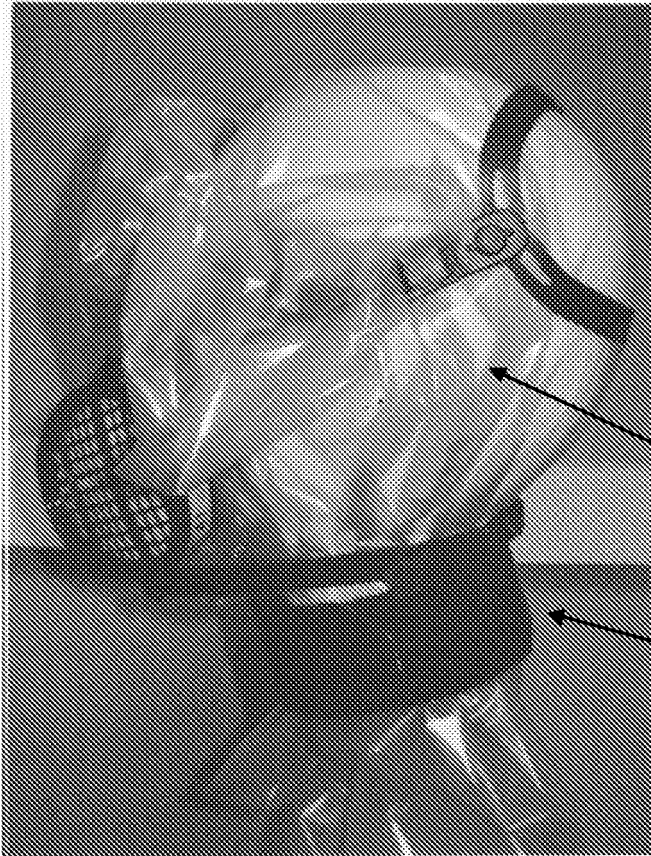
Figure 1 showing the nomenclature of a folded membrane

5 Figure 2 Military Gas Mask



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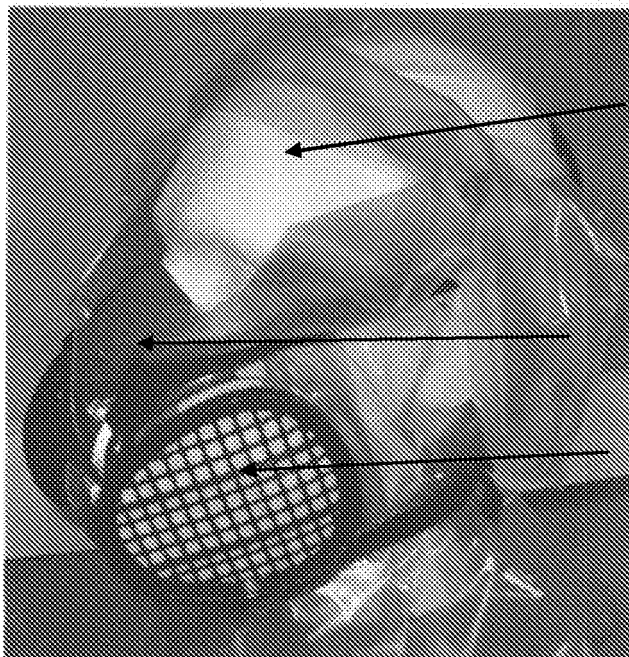
Figure 3A Hood System of the Invention



1 Plastic

5 User
configurable

Fig. 3B



2. Semi-rigid
visor

3 Facelet

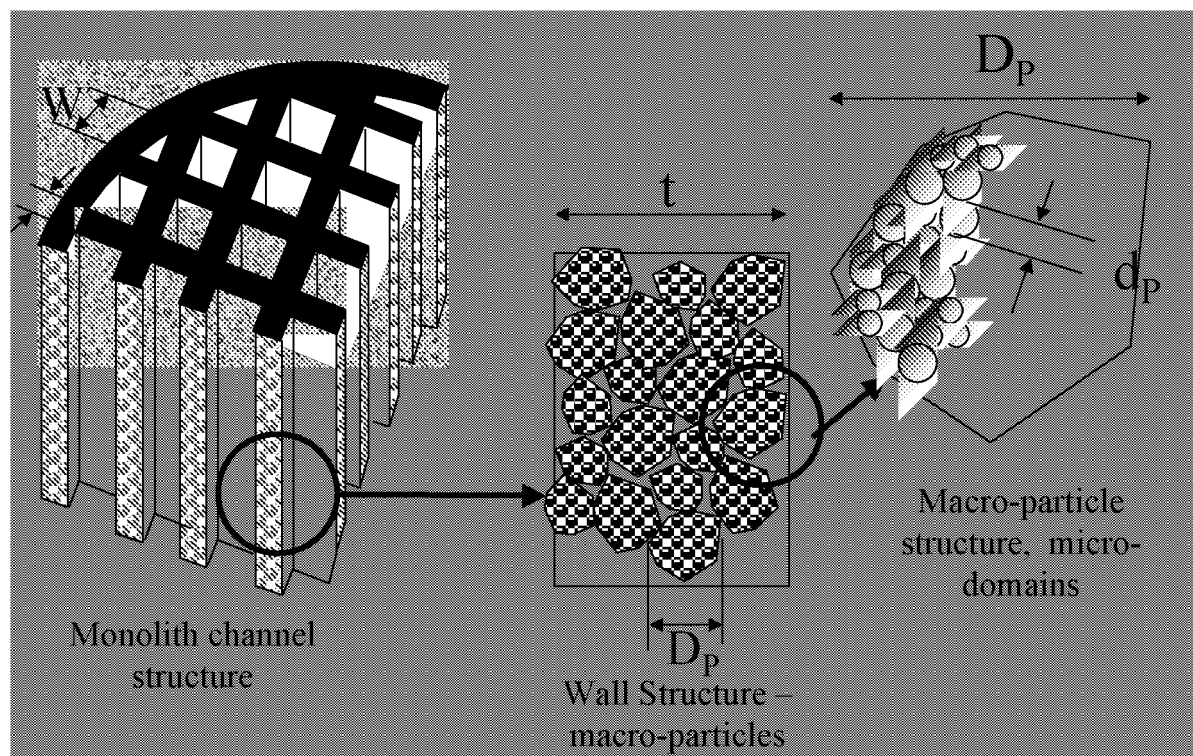
4 Canister

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Fig. 4: Front view of hood system of the invention



Figure 5 Monolithic Carbon Structure



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Fig. 6A Full particle Size range after milling

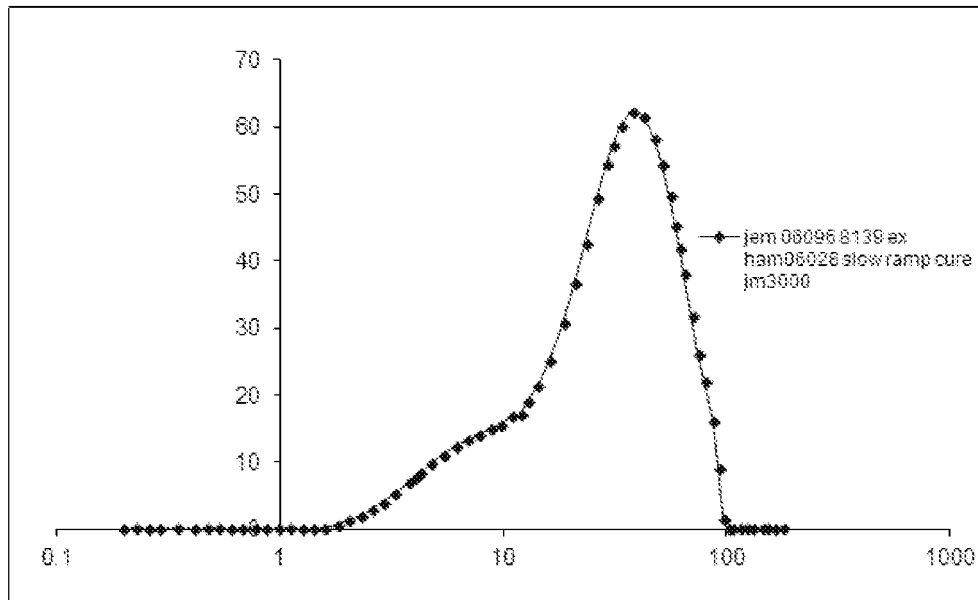
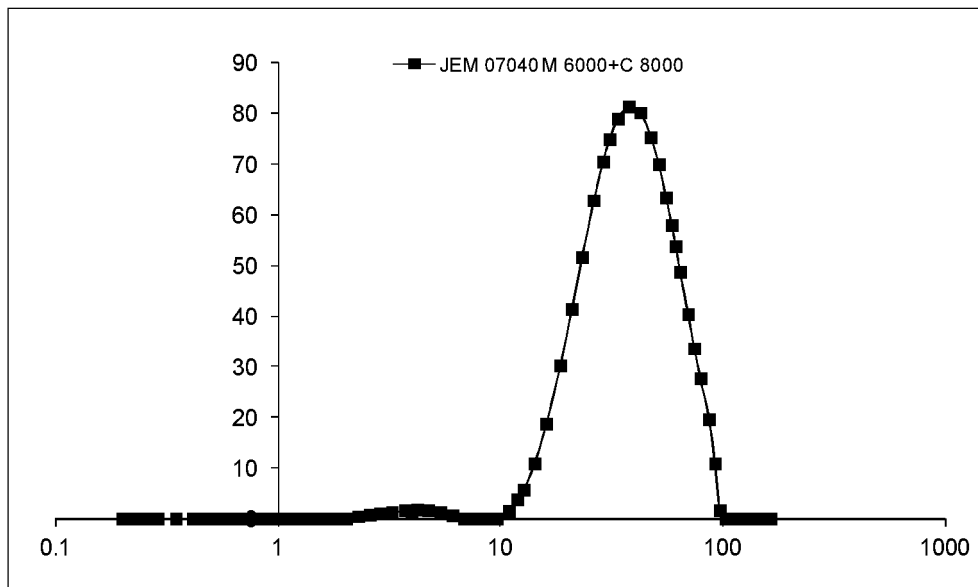
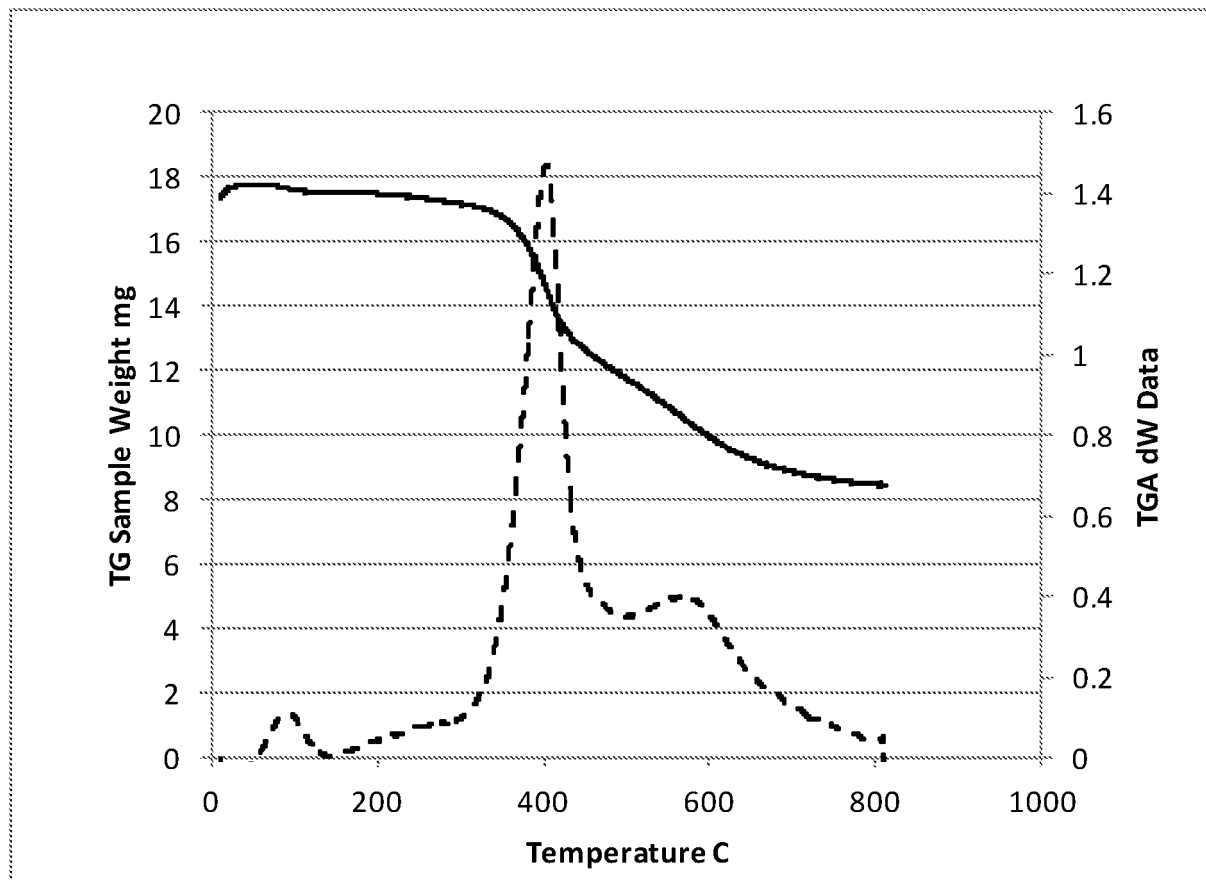


Fig. 6B After Classification to remove fines



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Figure 7 Carbonisation of Sintered Resin



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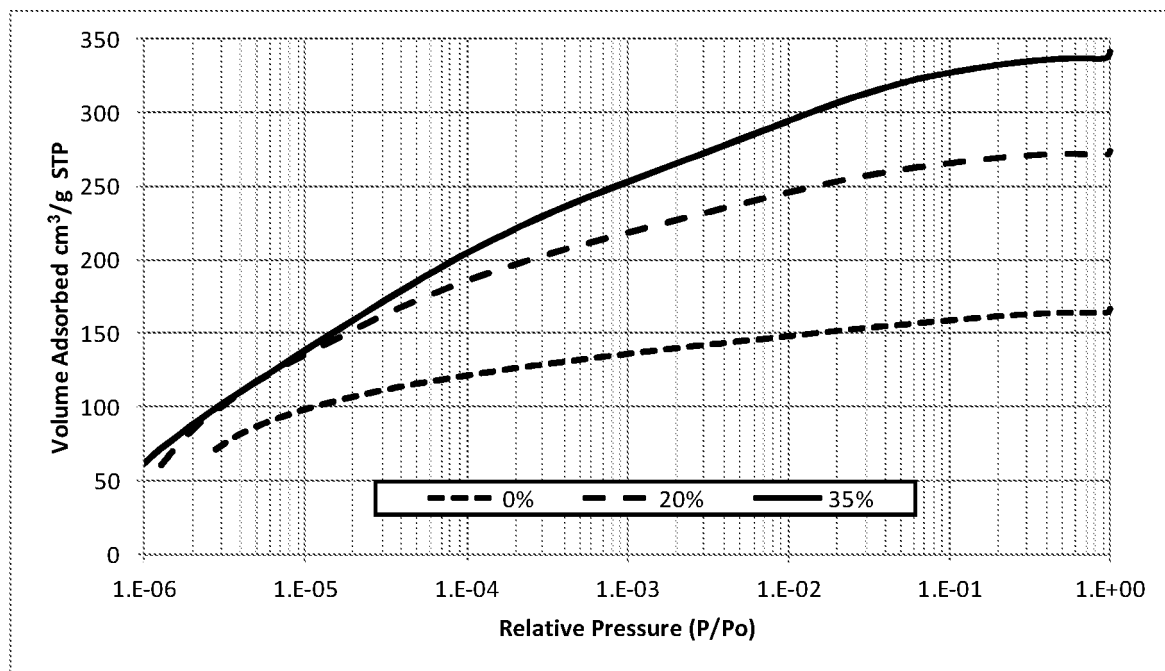
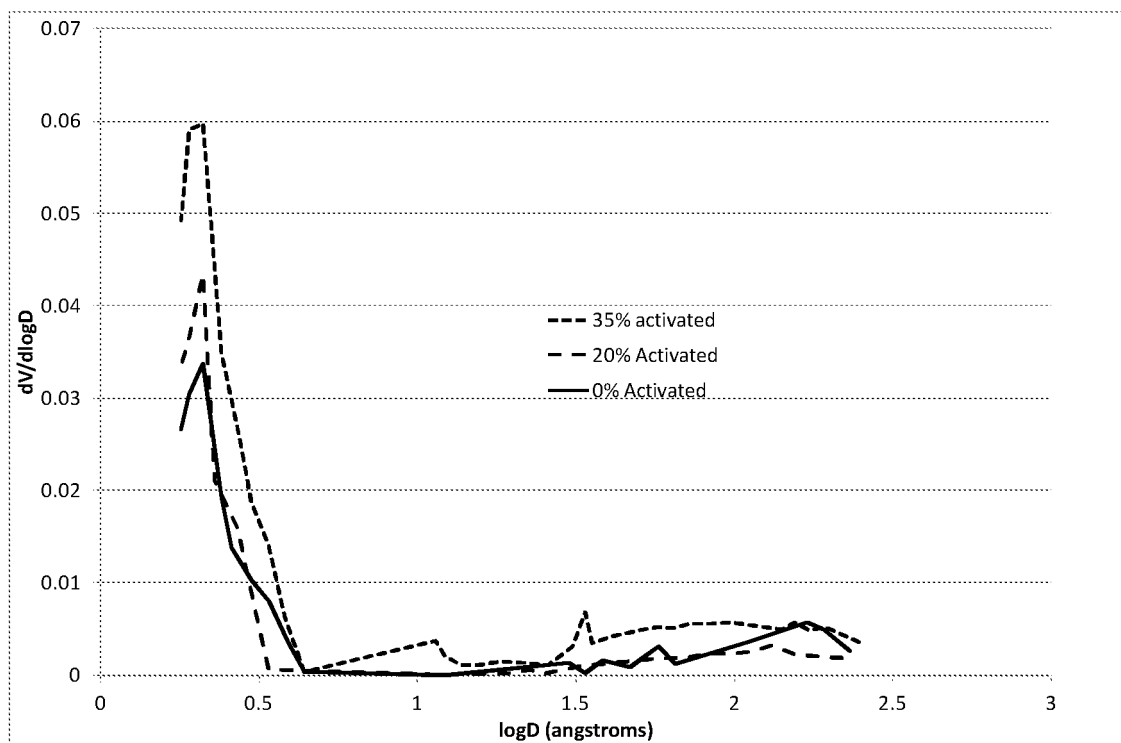
Figure 8 Nitrogen Adsorption Isotherms for CO₂ Activated Monoliths

Figure 9 Pore Size Distribution of Activated Monoliths by BJH Method

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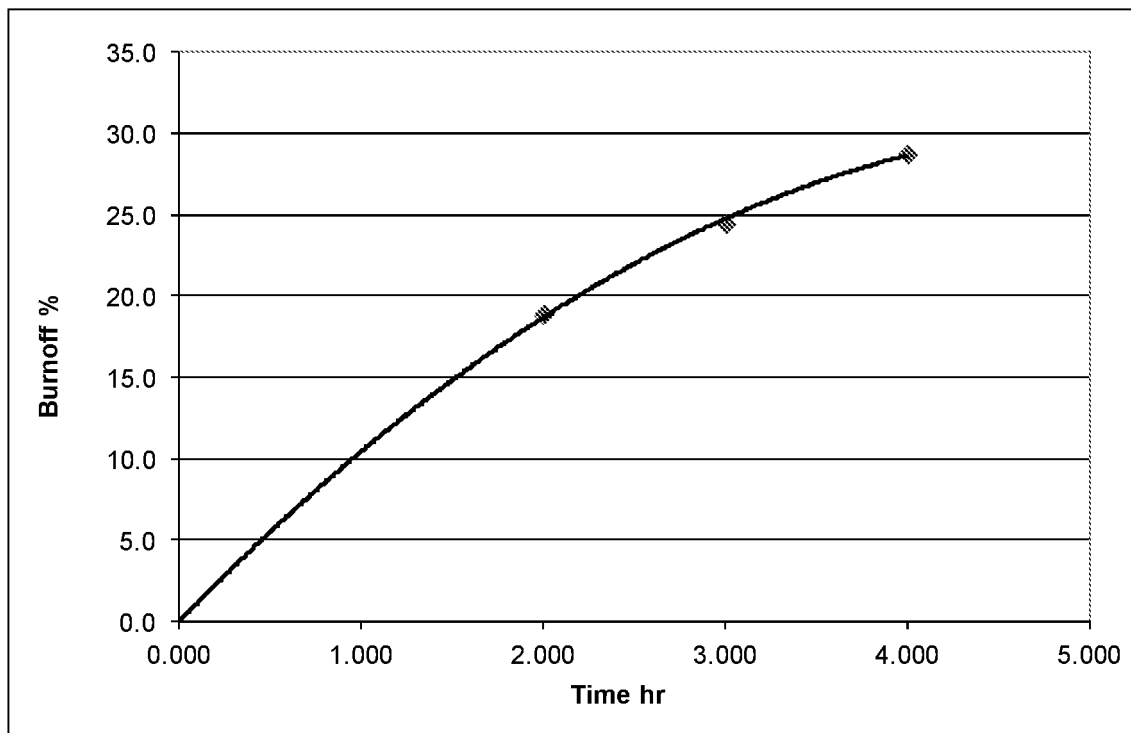
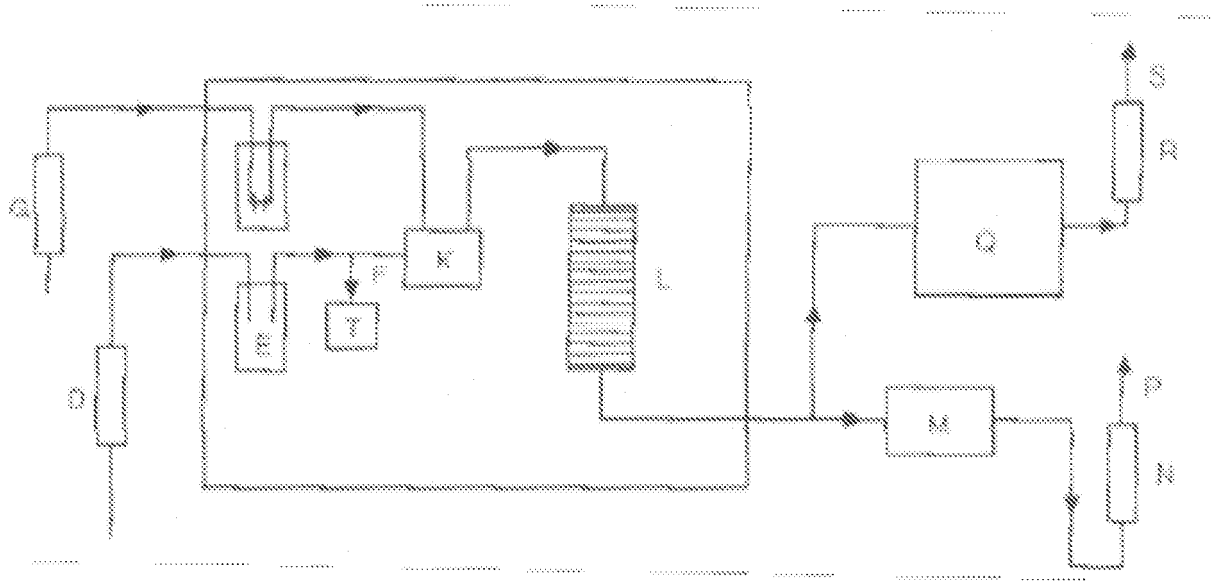


Figure 10 Activation of monolith Segments -900C in flowing carbon dioxide

Figure 11 Adsorbent Testing System and monolith mounting system



D flow meter for air

E water saturator

F excess of air (not in use in case of sinusoidal flow)

G flow controller for vapour generating branch of airflow

H vapour generating system

K mixing chamber

L filter to be tested

M safety charcoal filter

N breathing machine

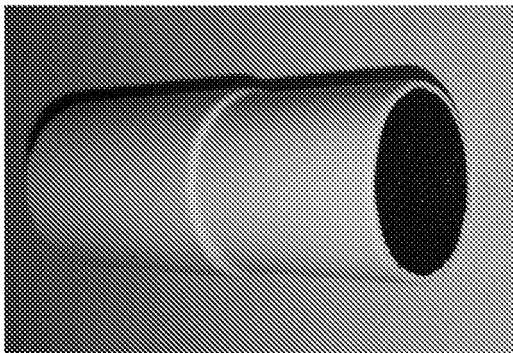
P vacuum system

Q analysis of effluent concentration

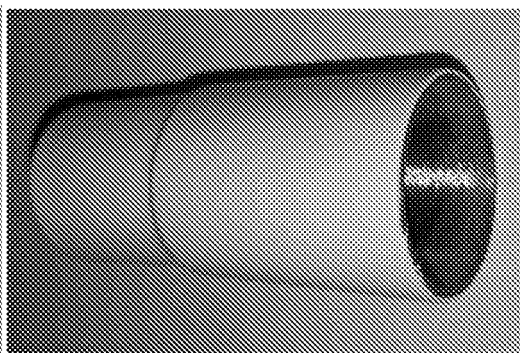
R flow controller for detection

S vacuum system

T measurement of T and RH



Shrink wrapped showing monolith



Shrink wrapped showing copper tune

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Figure 12. Effect of Monolith Length and Activation Duration on Burn Off

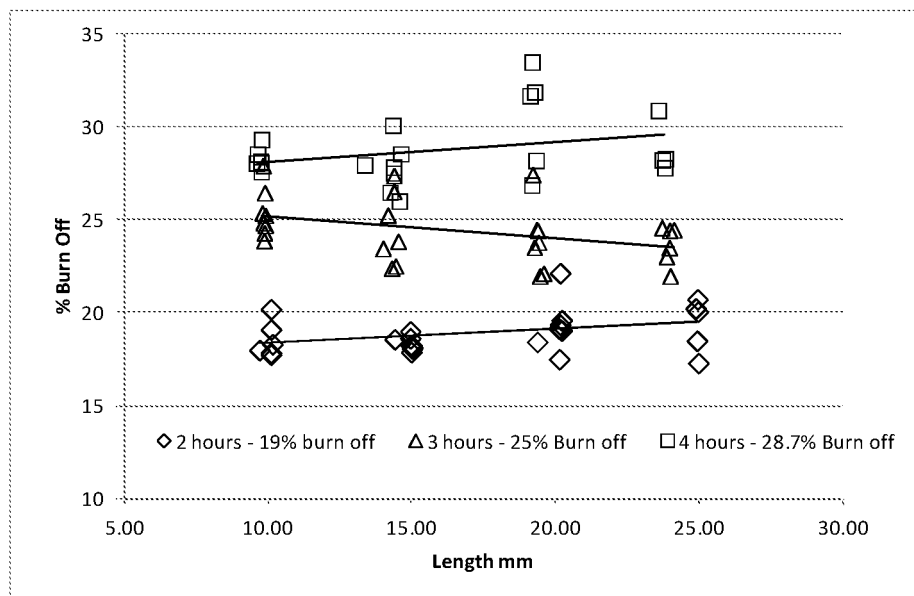
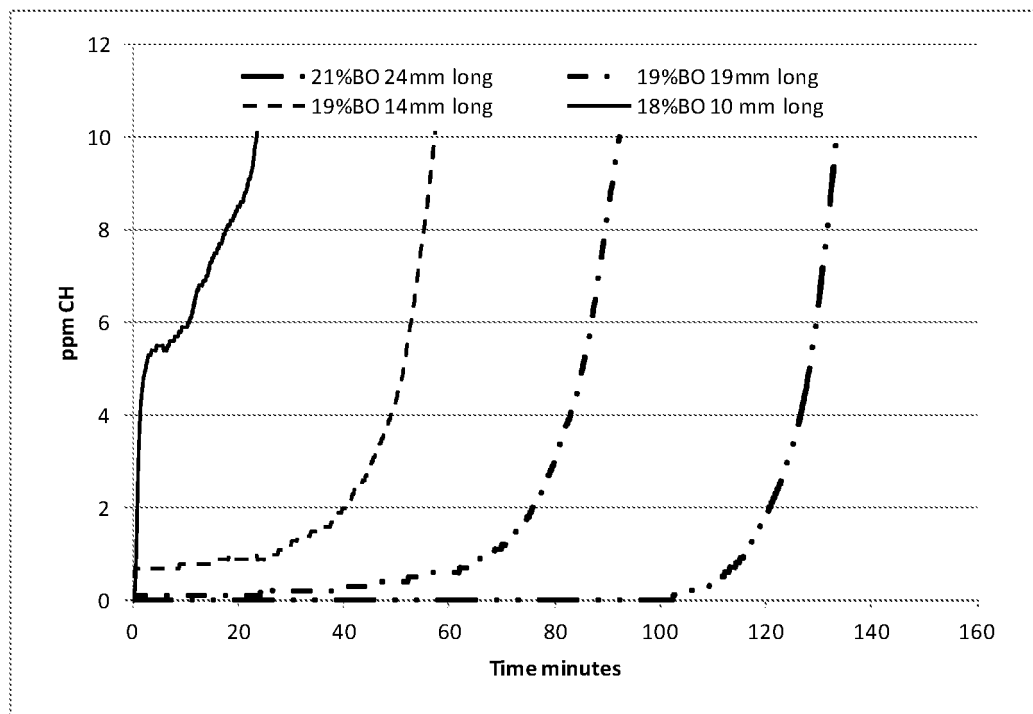


Figure 13A Cyclohexane Breakthrough Curves for Monoliths Activated to approximately 20% burn off



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Figure 13B Cyclohexane Breakthrough Curves for Monoliths Activated to approximately 25% burn off

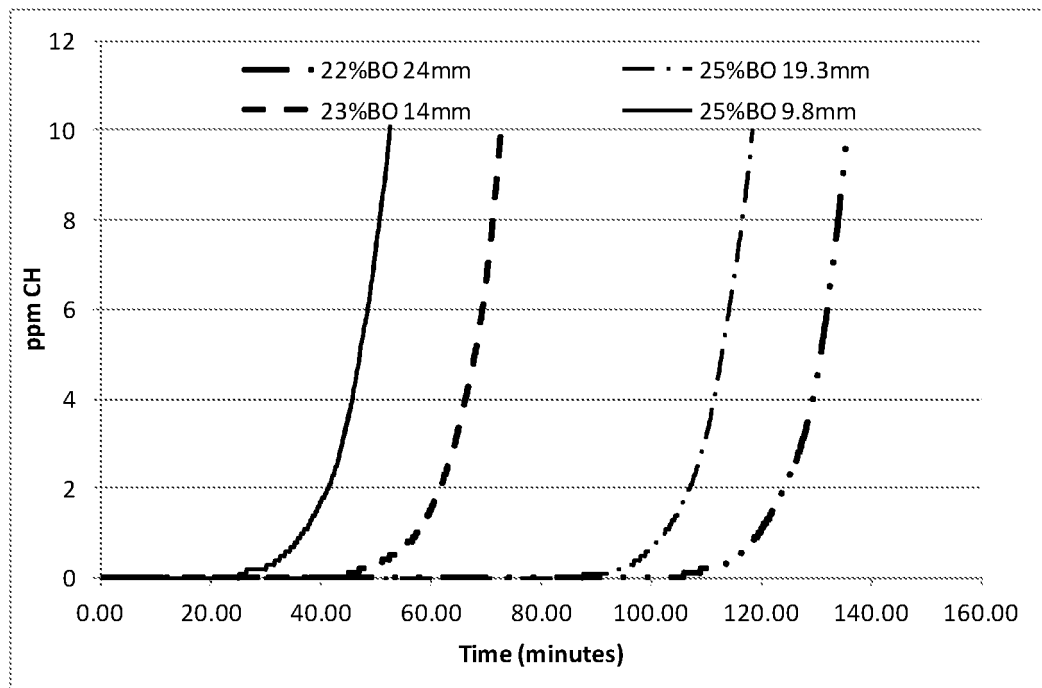
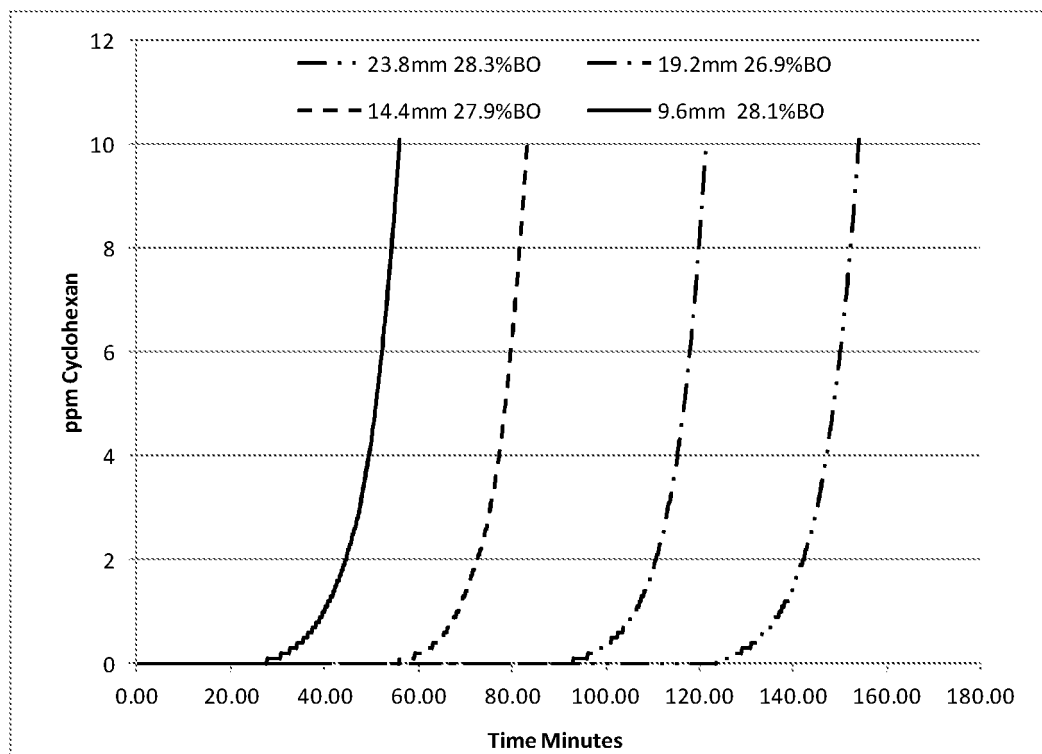


Figure 13C Cyclohexane Breakthrough Curves for Monoliths Activated to approximately 30% burn off



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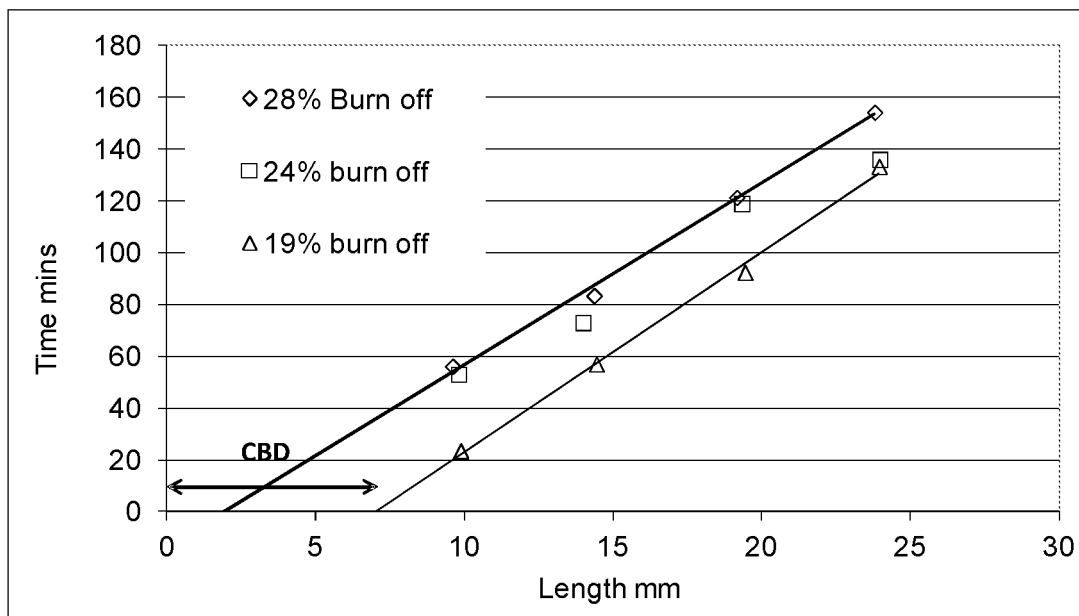


Figure 14 Cyclohexane Critical Bed Depth Performance

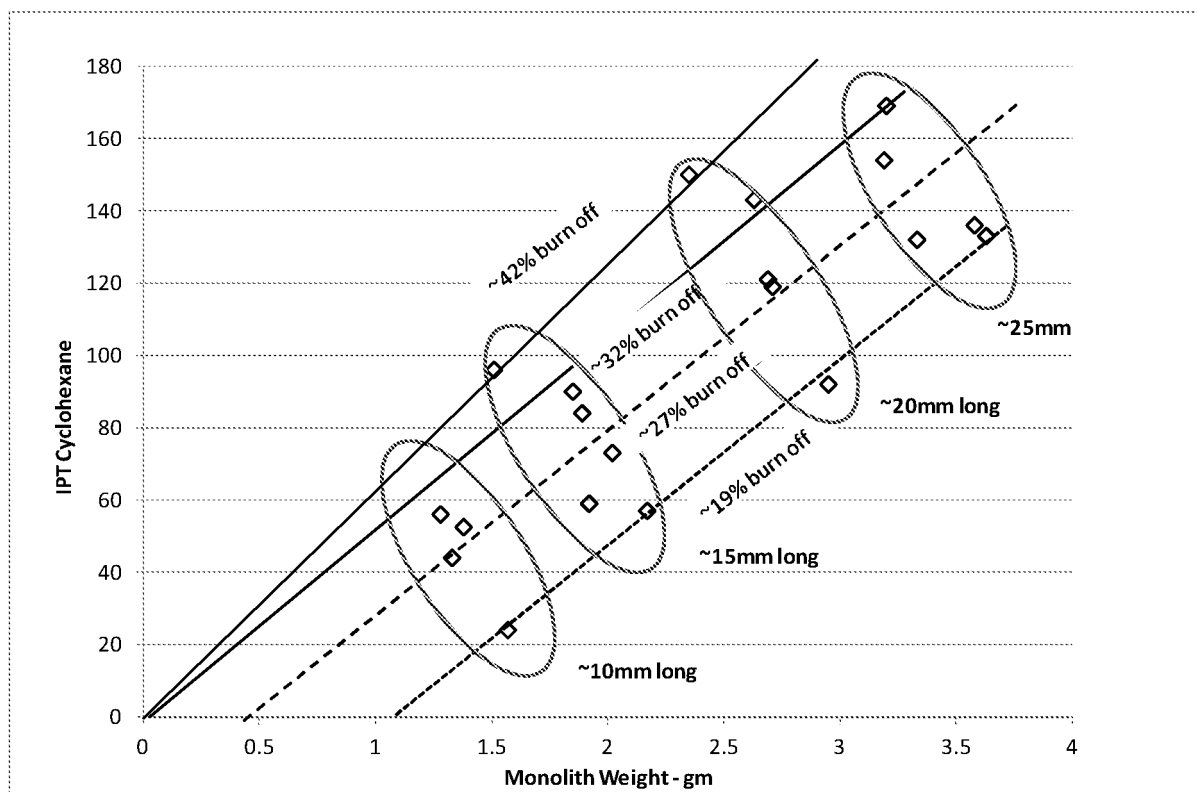


Figure 15 CBD Comparison of all Activated Monoliths

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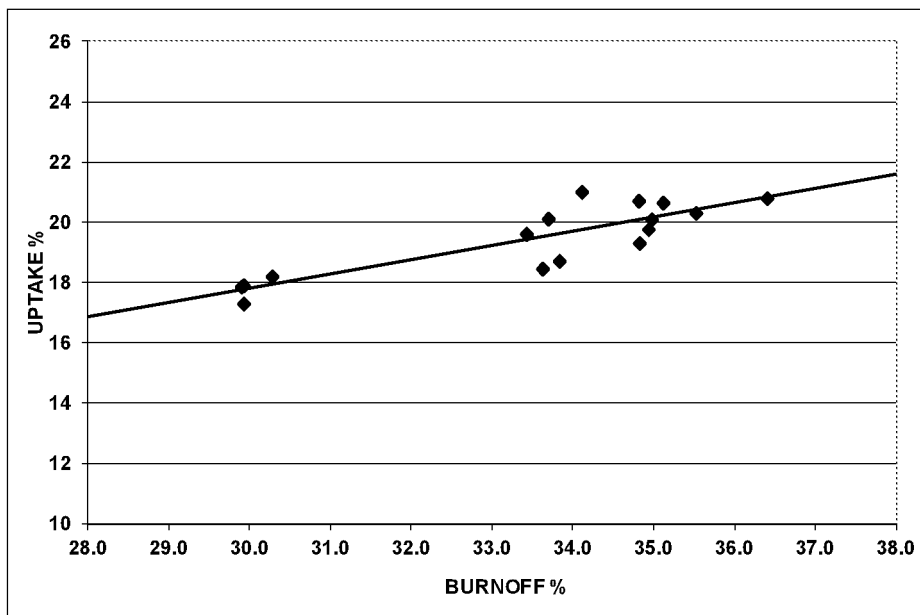


Figure 16 Adsorption of Metal Compounds (Cu/Ag/Mo/Zn) as a Function of Burn-off

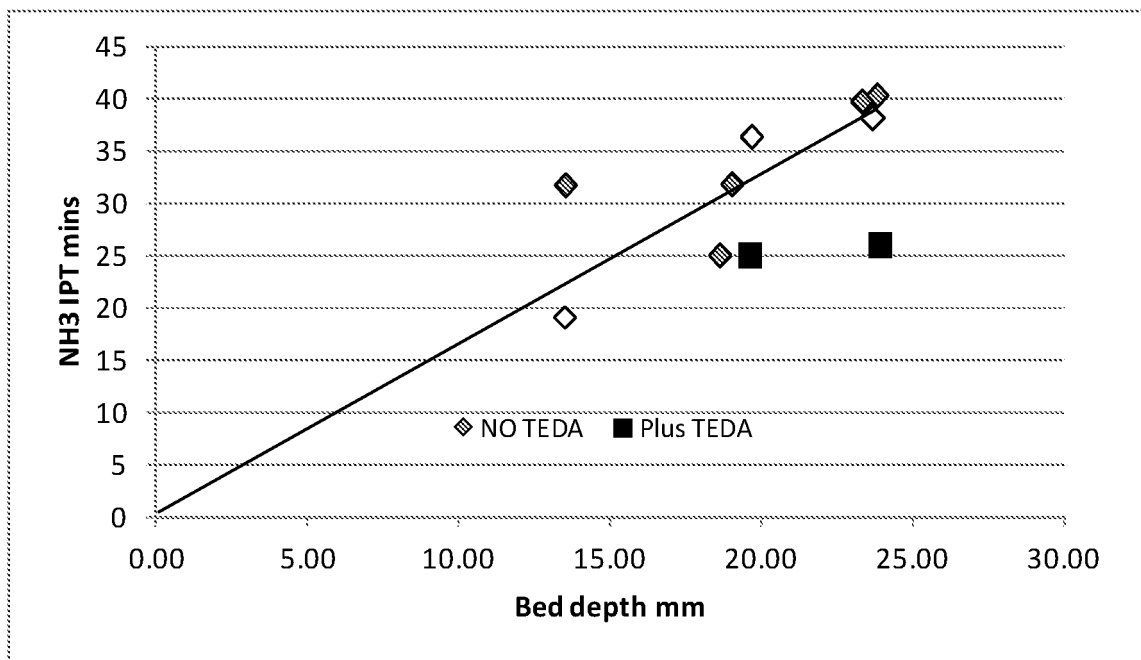


Figure 17 Ammonia Adsorption on Impregnated Monoliths

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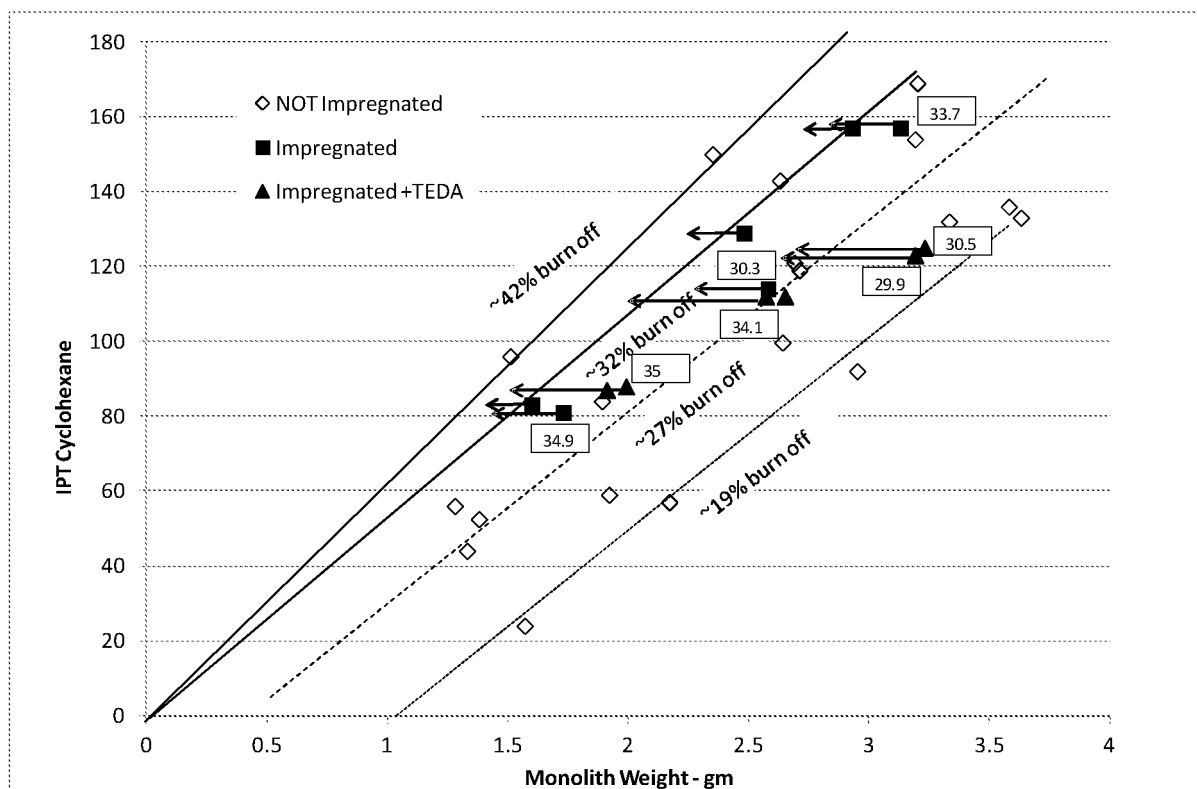


Figure 18 Impact of Impregnates on Cyclohexane Adsorption

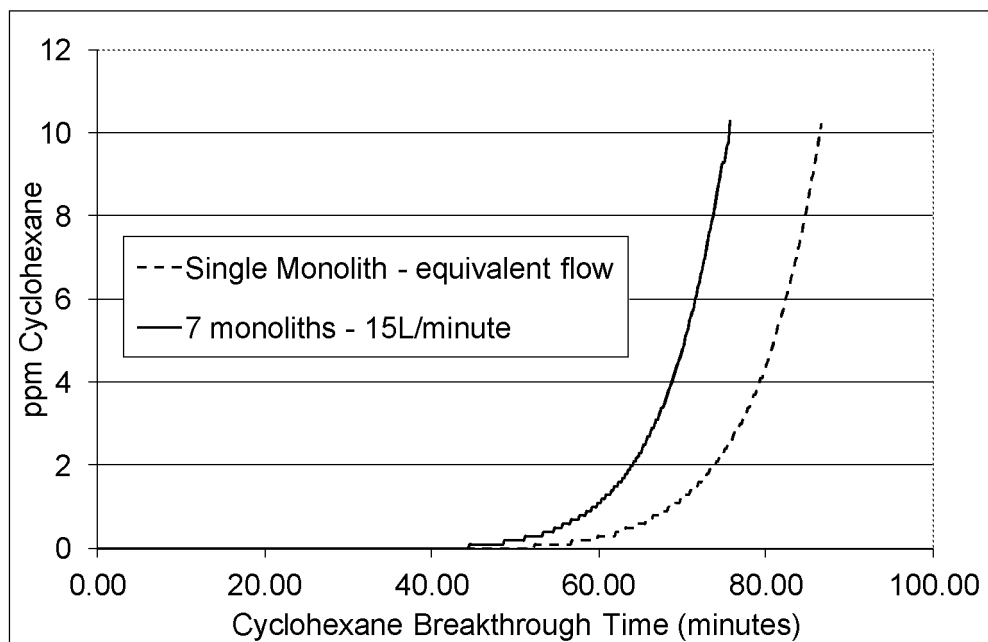


Figure 19 Comparison of Canister and Single Monolith

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Figure 20 Layout of Monolith Based Canister

