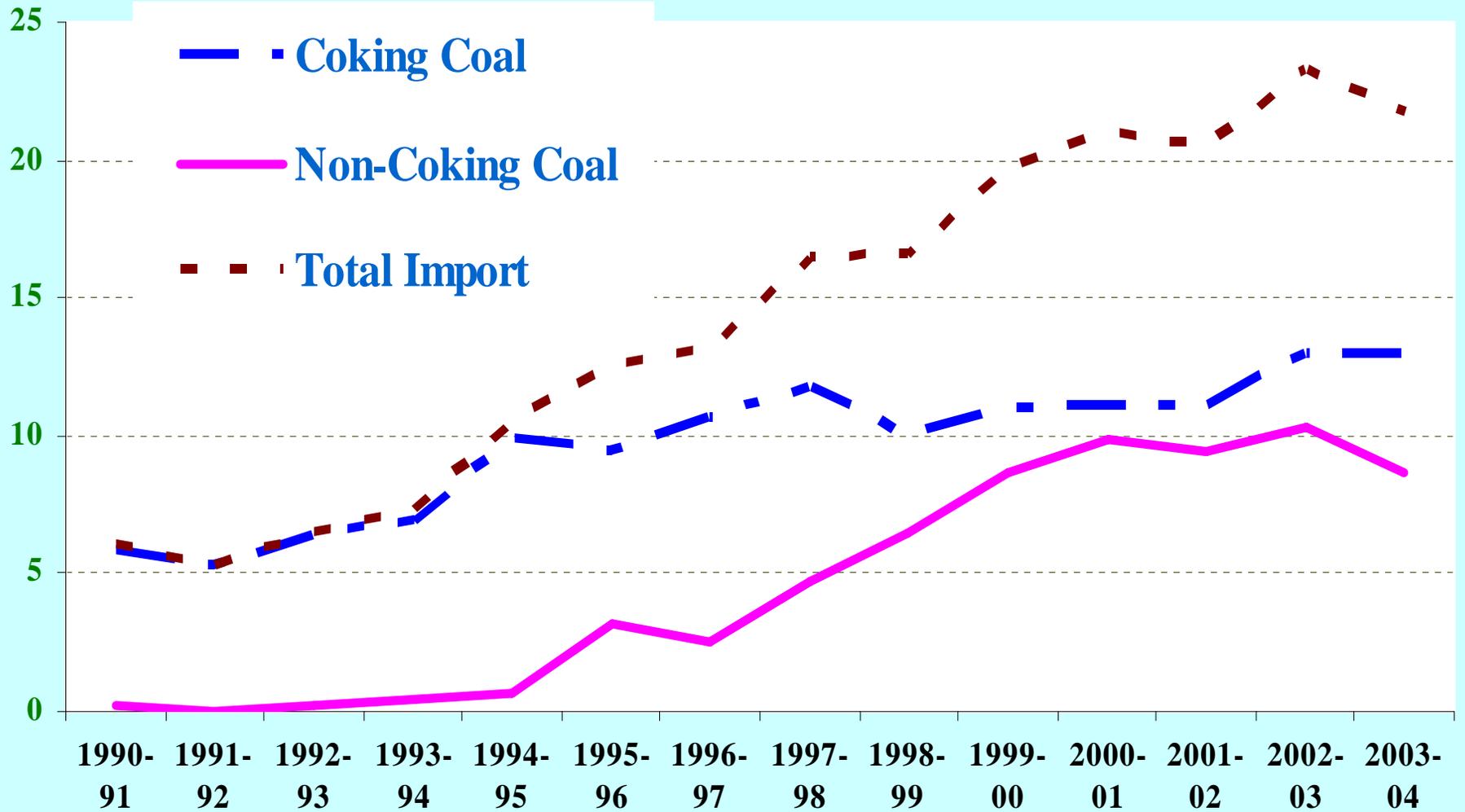


*Optimum*

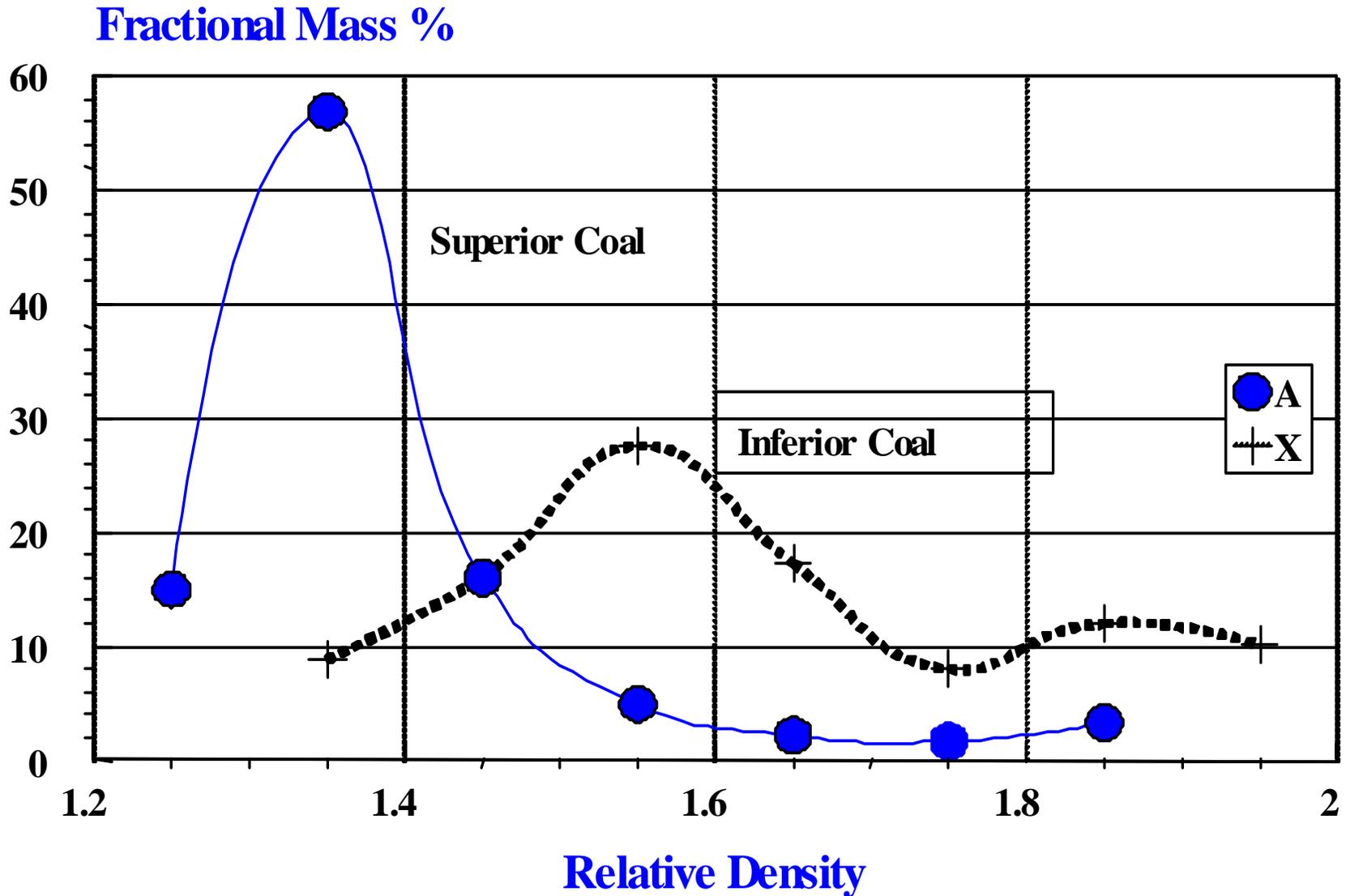
*Beneficiation of Global  
Coals*

*Dr Kalyan Sen*

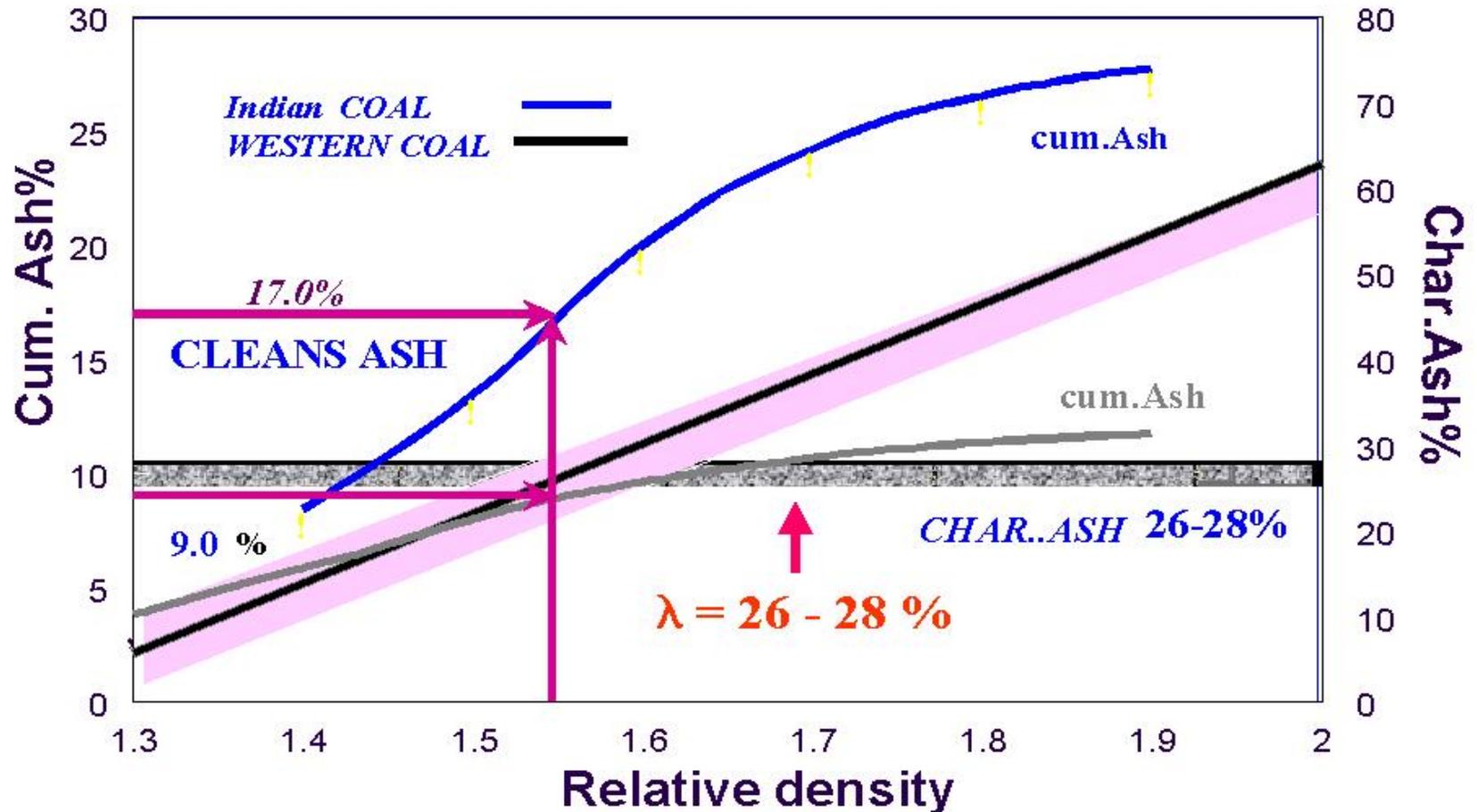
# Import of Coal



# Mass Distribution of Superior & Inferior Types of Coals



# Western coal vs. Indian coal



*Relationship between fract. Ash% & mid. sp. gr.  
is one of the inherent properties of coal*

- ❖ *universal in nature*
- ❖ *linear, in sp. gr. range of coaly matter*
- ❖ *co-eff. of linearity indicates the maturity*

*hence, the name*

**Characteristic Ash ( $\lambda$ )**

# Characteristic ash

as

*optimum quality parameter*

*for coking coal*       $\lambda = 26-28\%$

*limiting value for*

**non-coking coal**       $\lambda = 50-55\%$

*This is why,*  
*for metallurgical use,*  
**Western coals**  
*(av. ash% 12-16) are washed*  
*down to 8-12%,*  
*in comparison to Indian coals*  
*that need to be washed down*  
*to 17-19% ash*

*Similarly,*  
*for thermal power plant use,*  
**Western coals**  
*are washed down to 12-16%,*  
*in comparison to Indian coals*  
*that need to be washed down*  
*to 30-34% ash*

## Range of cut density (d50) for Steel and Power Sectors

