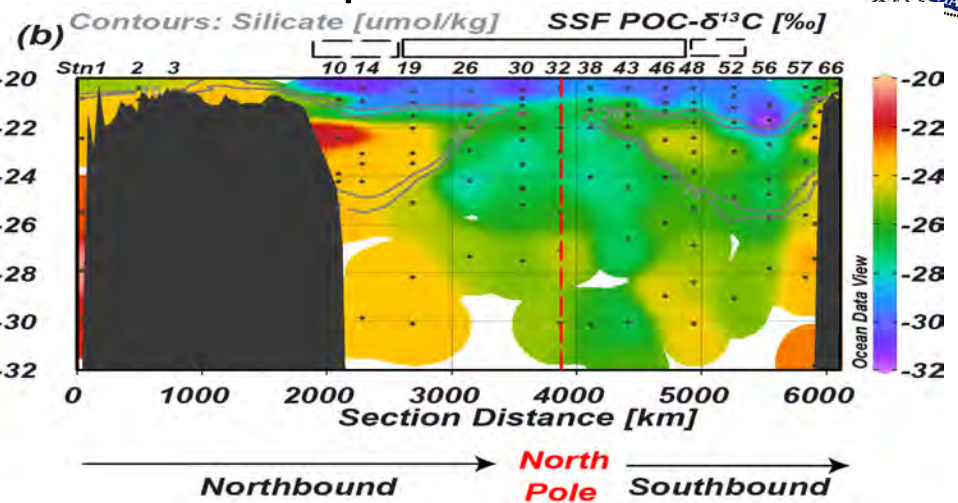
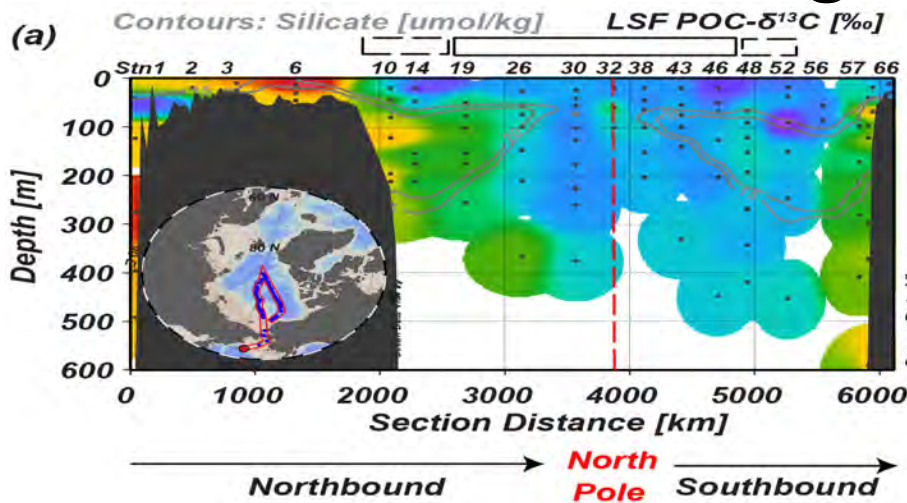


# $\delta^{13}\text{C}$ of POC gives insight on vertical vs lateral contributions of large and small particles



## Large particles (>51 $\mu\text{m}$ )

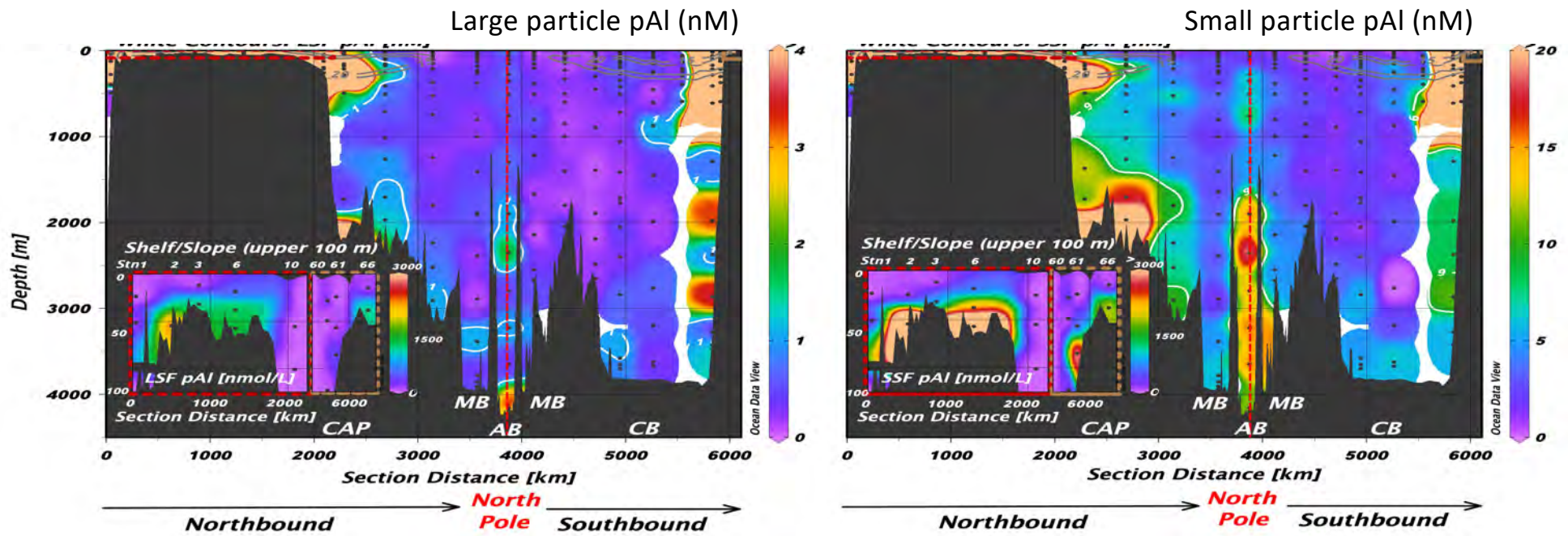
- Shelf surface endmember  $\sim -22\text{‰}$
- Basin surface endmember  $\sim -29\text{‰}$
- Halocline shows mixing of two endmembers
- Basin interior mostly from sinking from above

## Small particles (>51 $\mu\text{m}$ )

- Shelf surface endmember  $\sim -24\text{‰}$
- Basin surface endmember  $\sim -31\text{‰}$
- Halocline dominated by shelf endmember
- Basin interior shows a mixture

Xiang and Lam, submitted

# Particulate Al shows clear bottom resuspension/ lateral transport

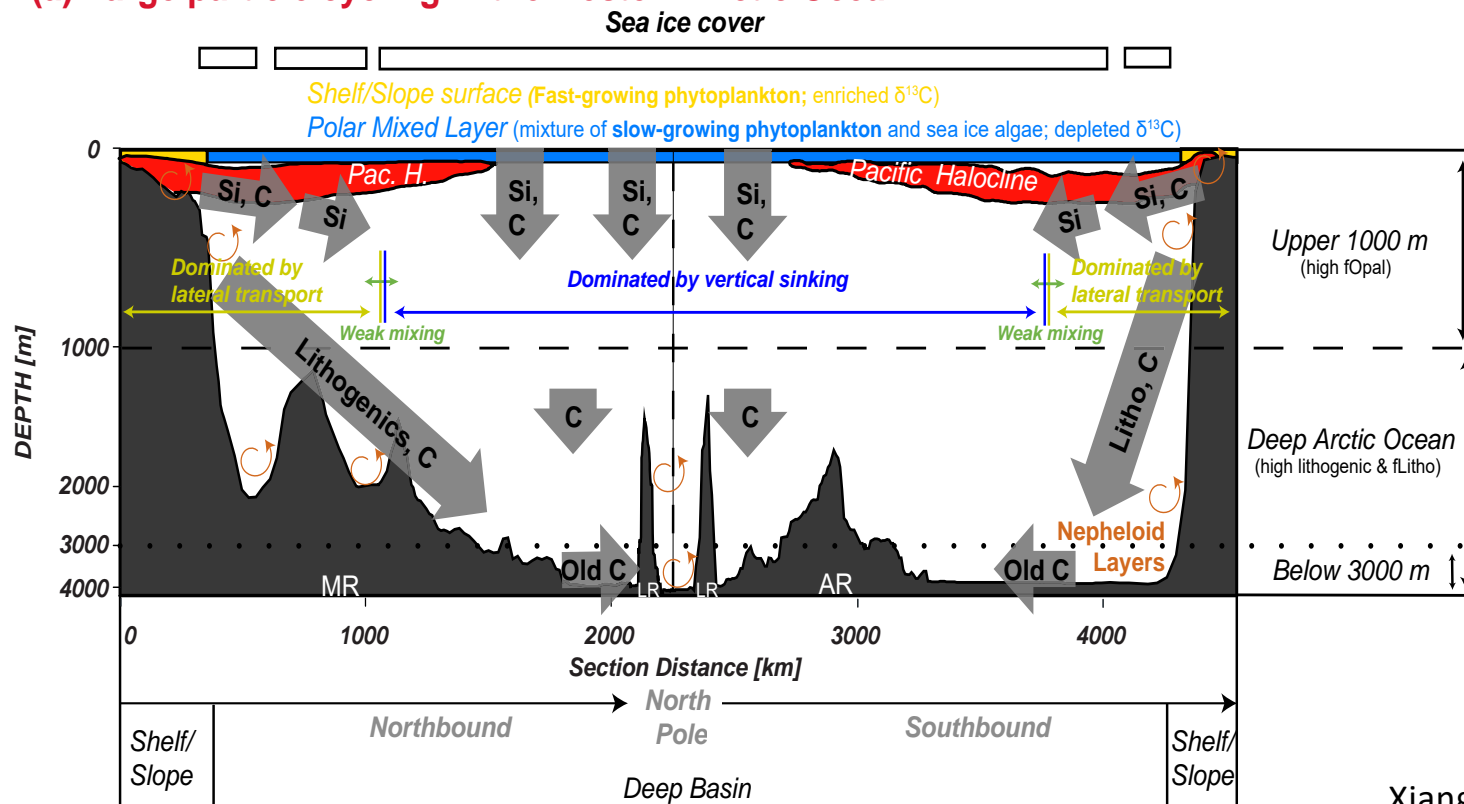


Xiang and Lam, submitted  
yaxiang@ucsc.edu; pjlam@ucsc.edu

# Particle composition fingerprints suggest following for *large* particle cycling



## (a) Large particle cycling in the western Arctic Ocean

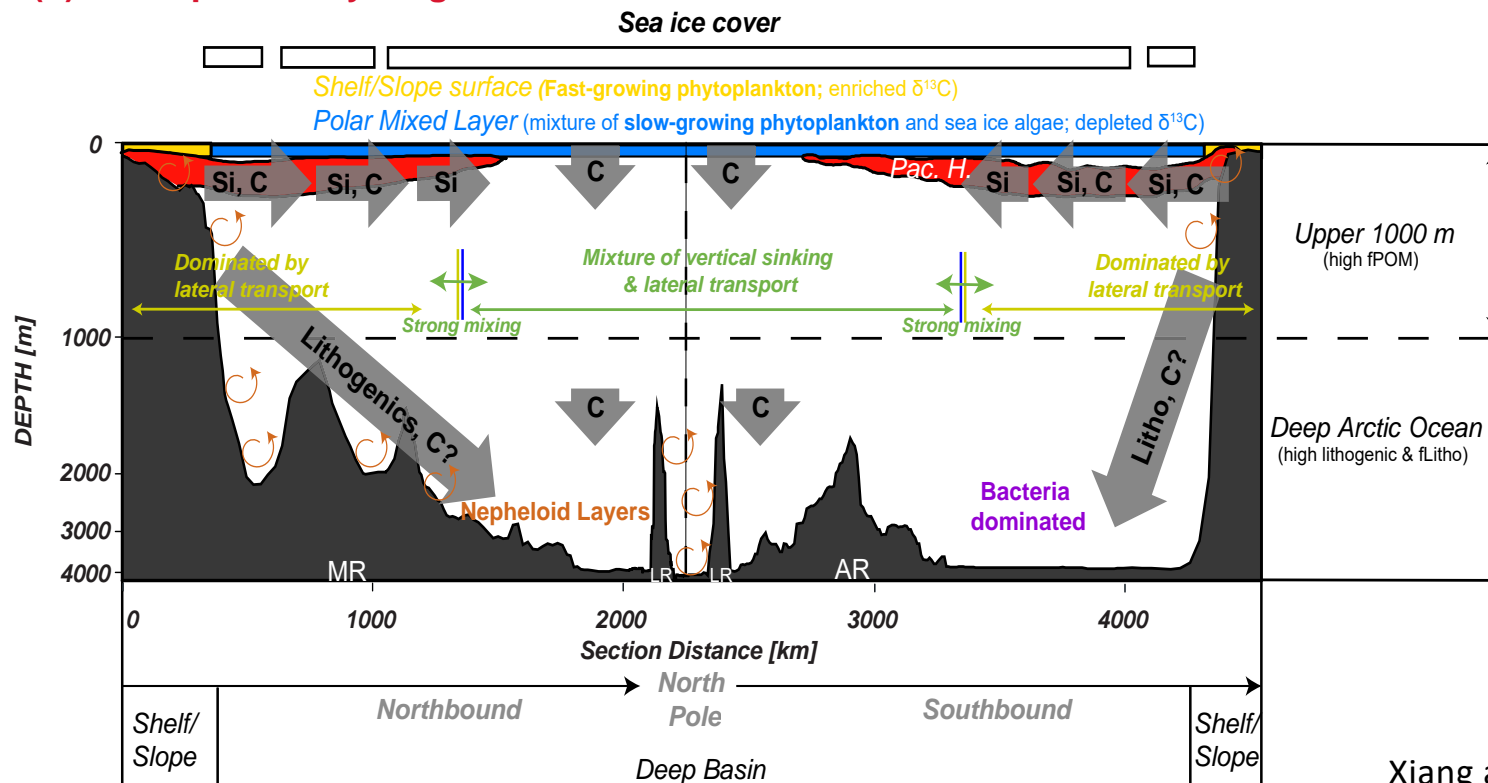


Xiang and Lam, submitted  
 yaxiang@ucsc.edu; pjlam@ucsc.edu

# Particle composition fingerprints suggest following for *small* particle cycling



## (b) Small particle cycling in the western Arctic Ocean



Xiang and Lam, submitted  
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