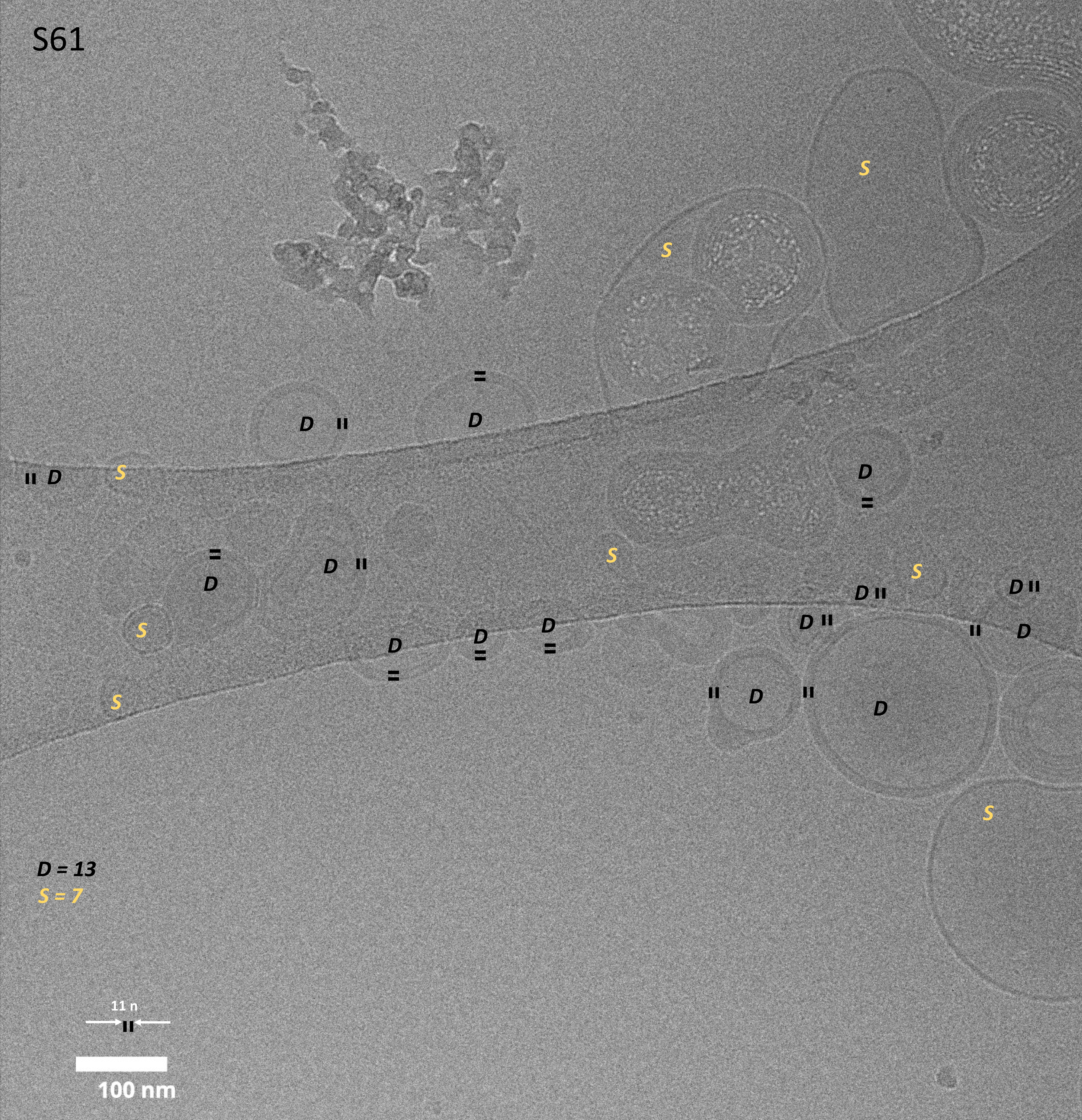


The effect on hydrolysis of confinement in small lipid vesicles

Ben Woods, Katherine Thompson, Nicolas Szita, Shu Chen, Lilia Milanesi, Salvador Tomas

Supplementary information: Cryo-TEM images. Images S61-S66 were obtained from samples subjected to osmotic shock (Sample S6, see Supplementary Information for composition details). Images S21-S26 from samples that had not undergone osmotic shock. (Sample S2, see Supplementary information for composition details). The label D is used to highlight the presence of double lamella vesicles, The label S, single lamella. Multilamellar structures are not quantified. The double vertical line has a total width of 11 nm (i.e., that of 2 membranes plus the inter-membrane thickness t calculated) and has been placed on top of the double lamella to highlight the closeness to the expected structure. See Supplementary information for calculation details and Supplementary Figure S5 for a summary of the EM calculation results.

S61



|| D

S

D ||

=

D

D

=

=

D

D ||

S

S

D ||

D ||

S

D

D

=

D

=

D ||

||

D

S

||

D

||

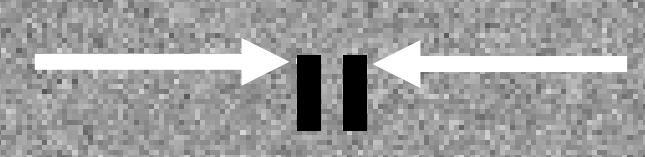
D

S

D = 13

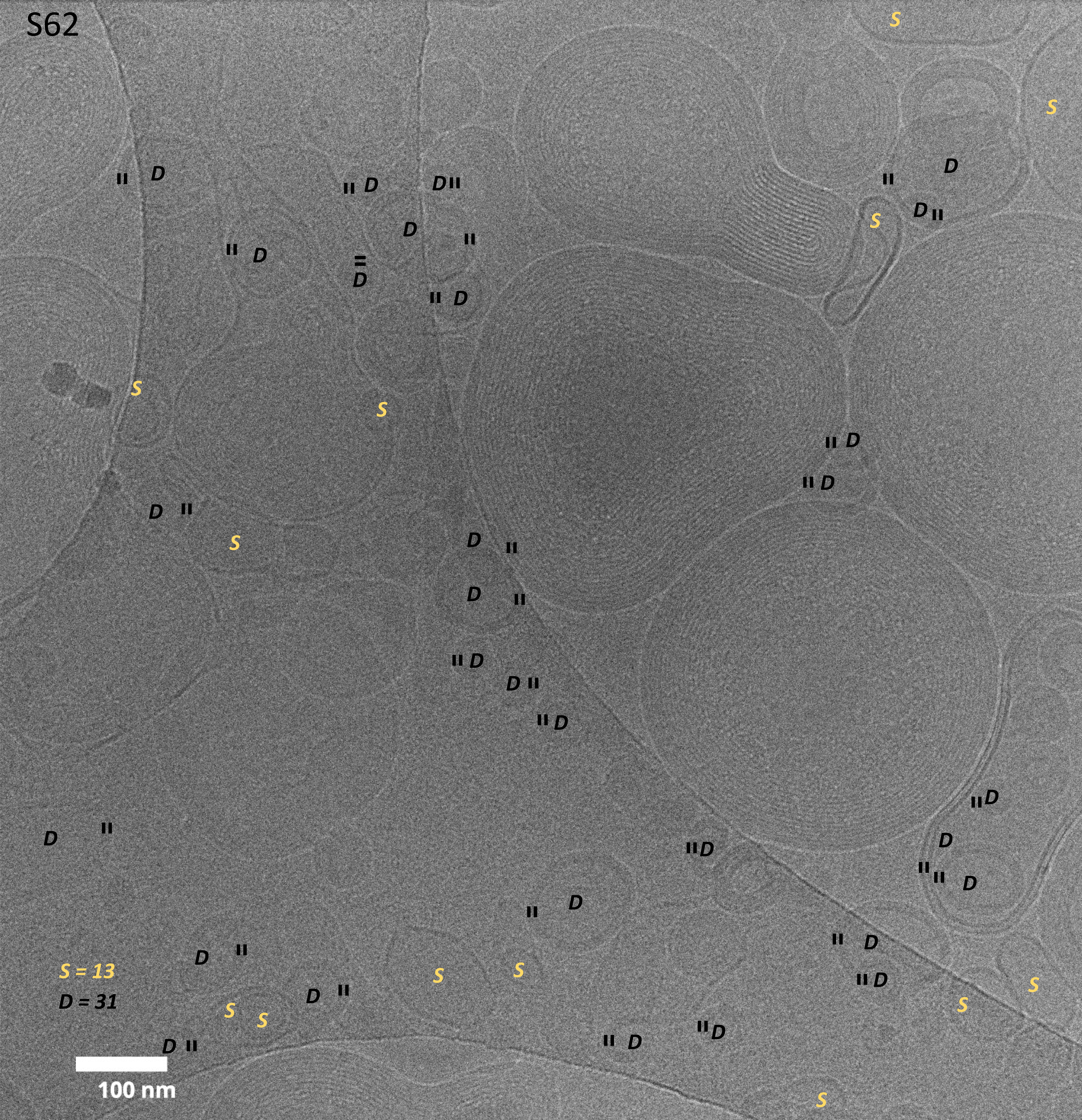
S = 7

11 n



100 nm

S62

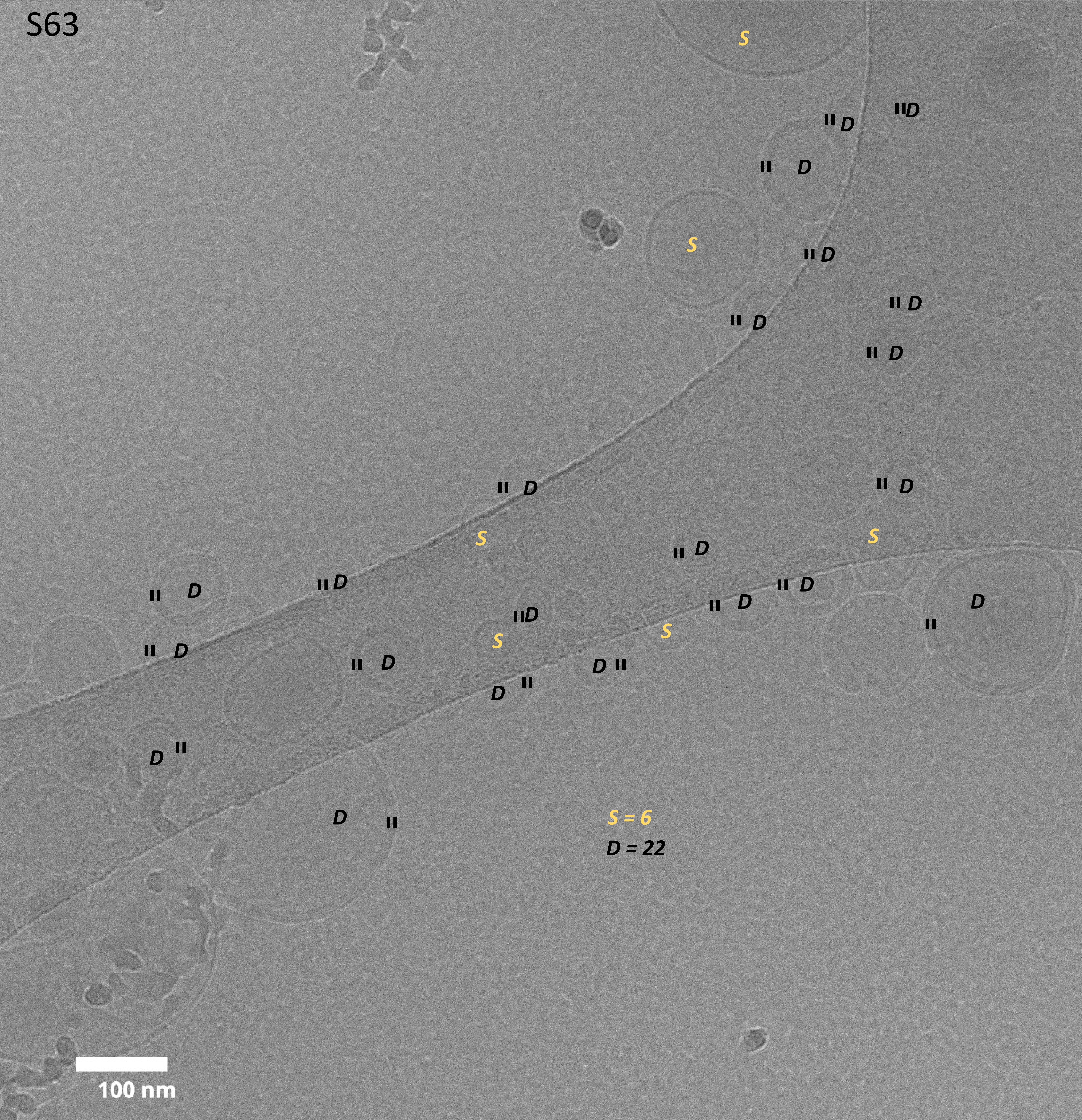


S = 13
D = 31



100 nm

S63



S

IID

IID

II D

S

IID

IID

II D

II D

II D

II D

S

II D

S

II D

IID

II D

IID

II D

IID

II

D

II D

S

S

D II

D II

D II

D II

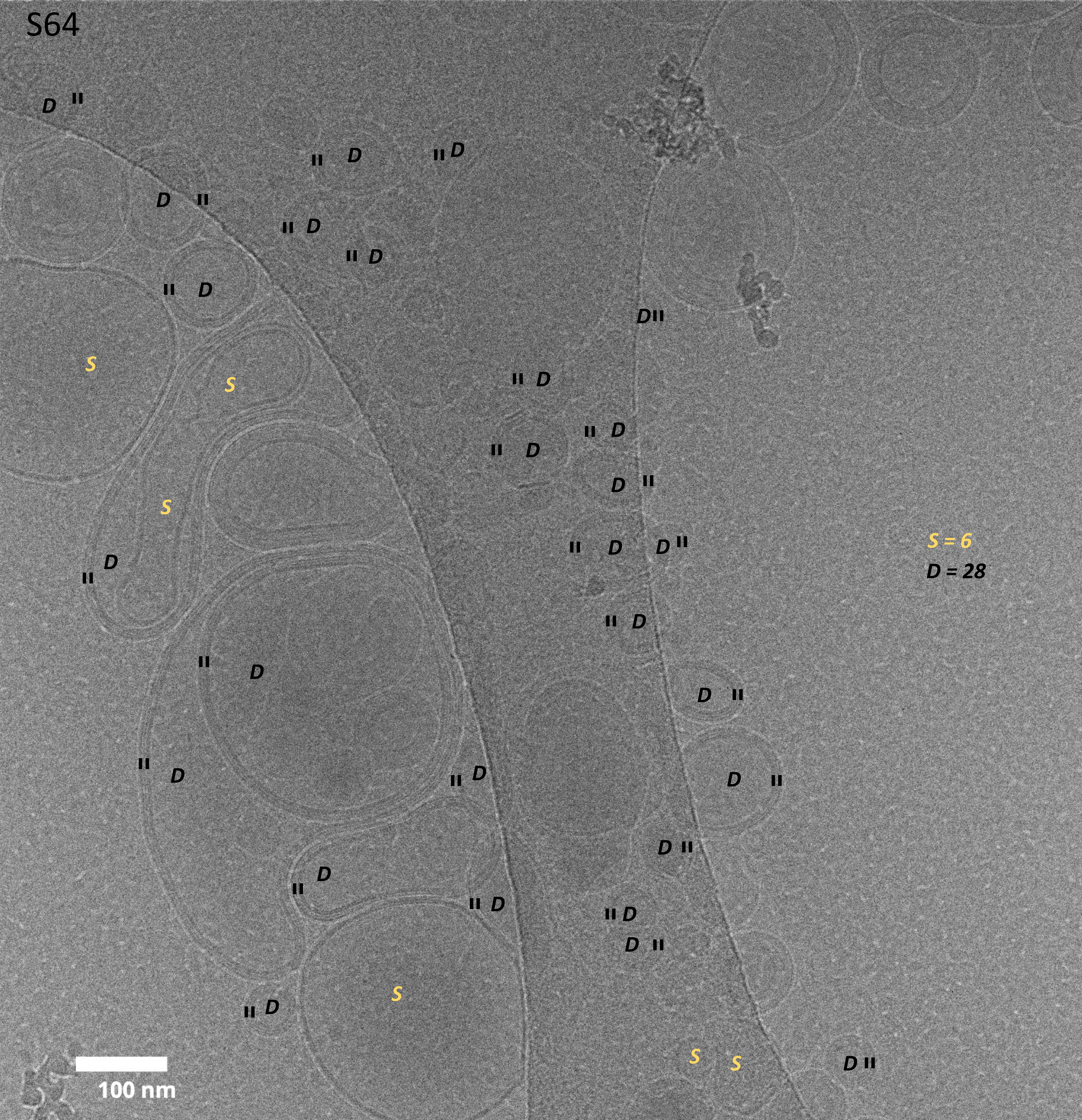
S = 6

D = 22



100 nm

S64



D II

II *D* II *D*

D II

II *D*

II *D*

II *D*

D II

S

S

II *D*

II *D*

II *D*

D II

S

II *D* *D* II

II *D*

S = 6
D = 28

II *D*

II *D*

D II

II *D*

II *D*

D II

II *D*

D II

II *D*

II *D*

D II

II *D*

S

S

S

D II



100 nm

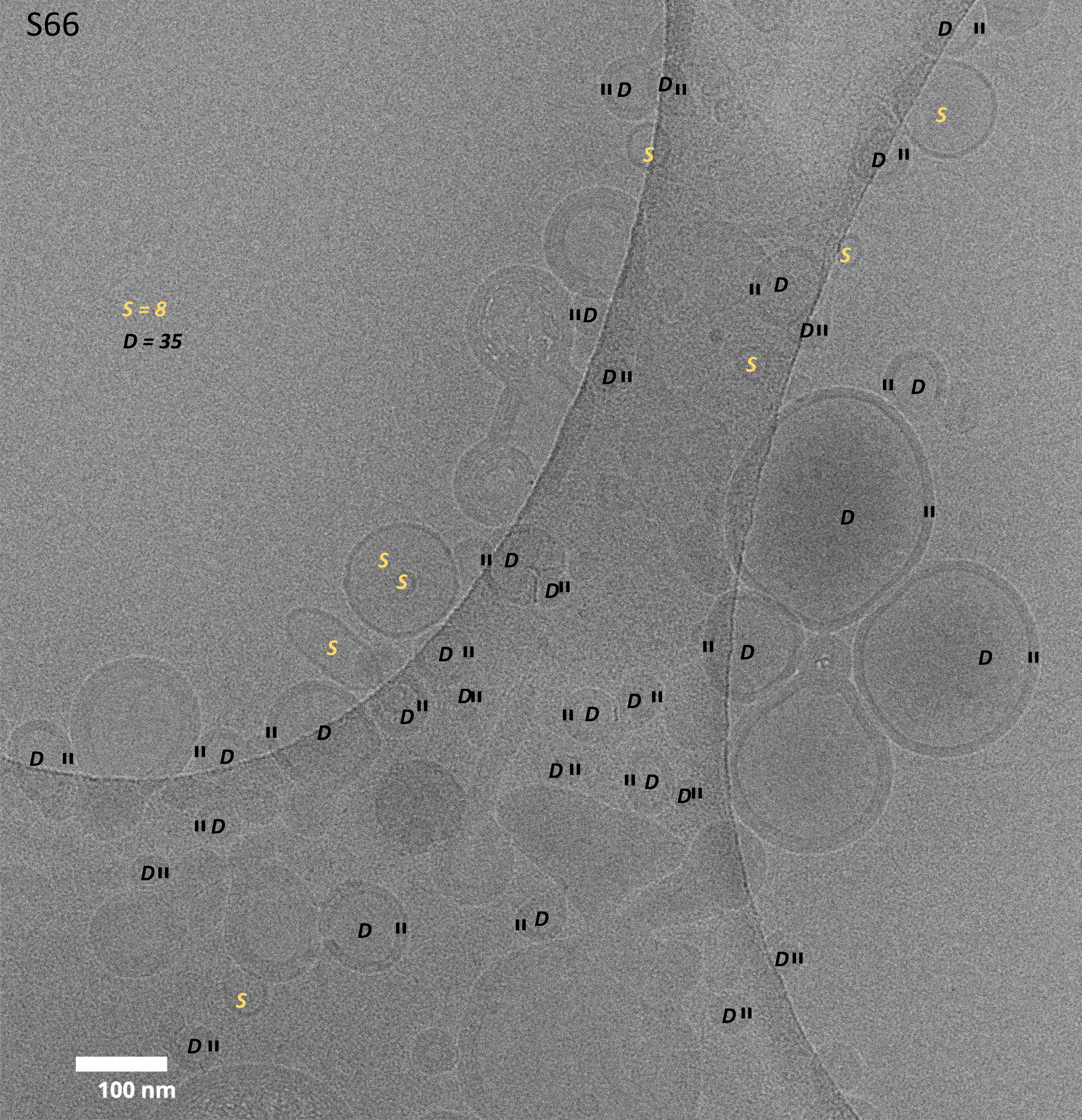
S65

100 nm



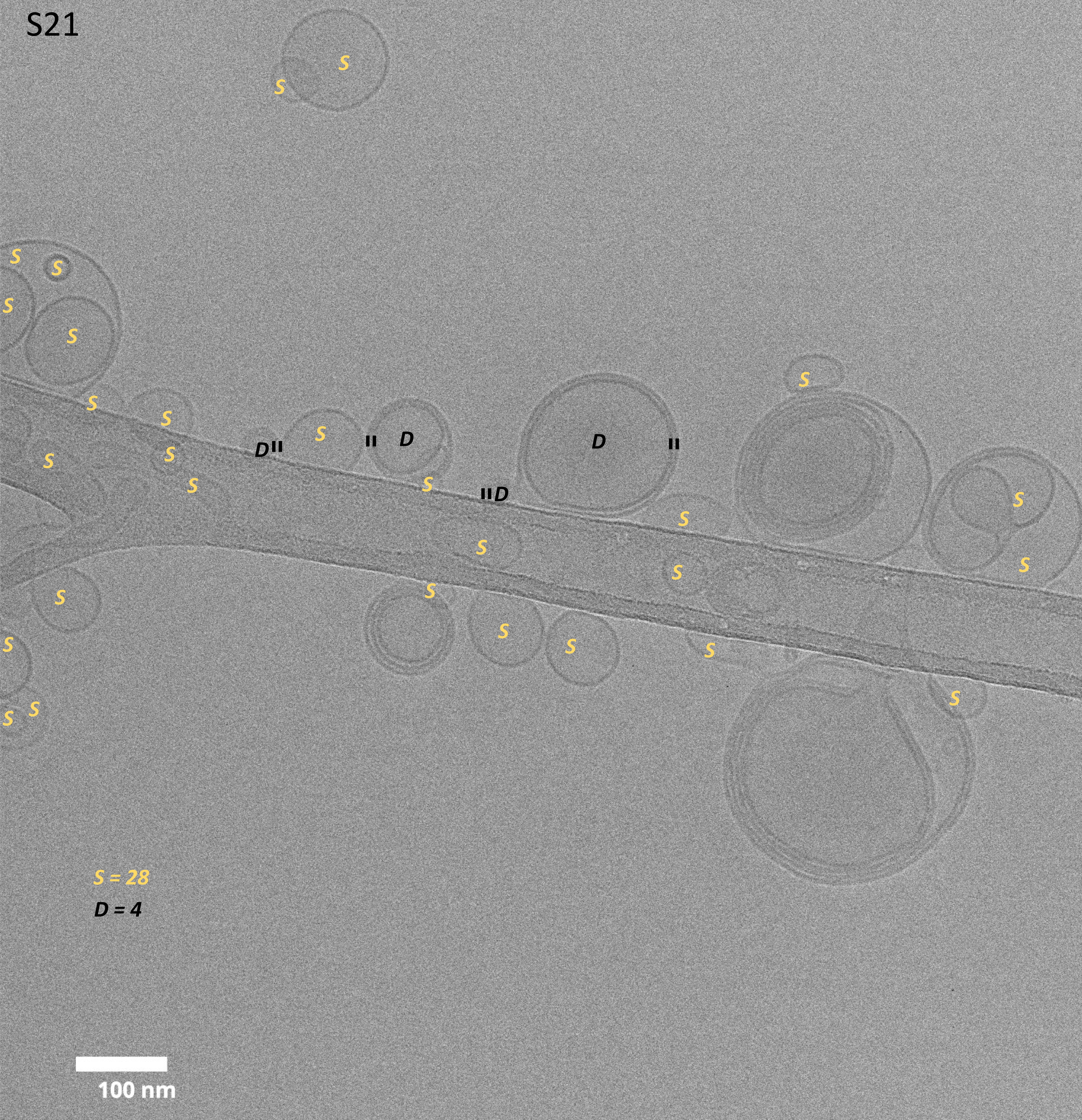
S66

$S = 8$
 $D = 35$



100 nm

S21



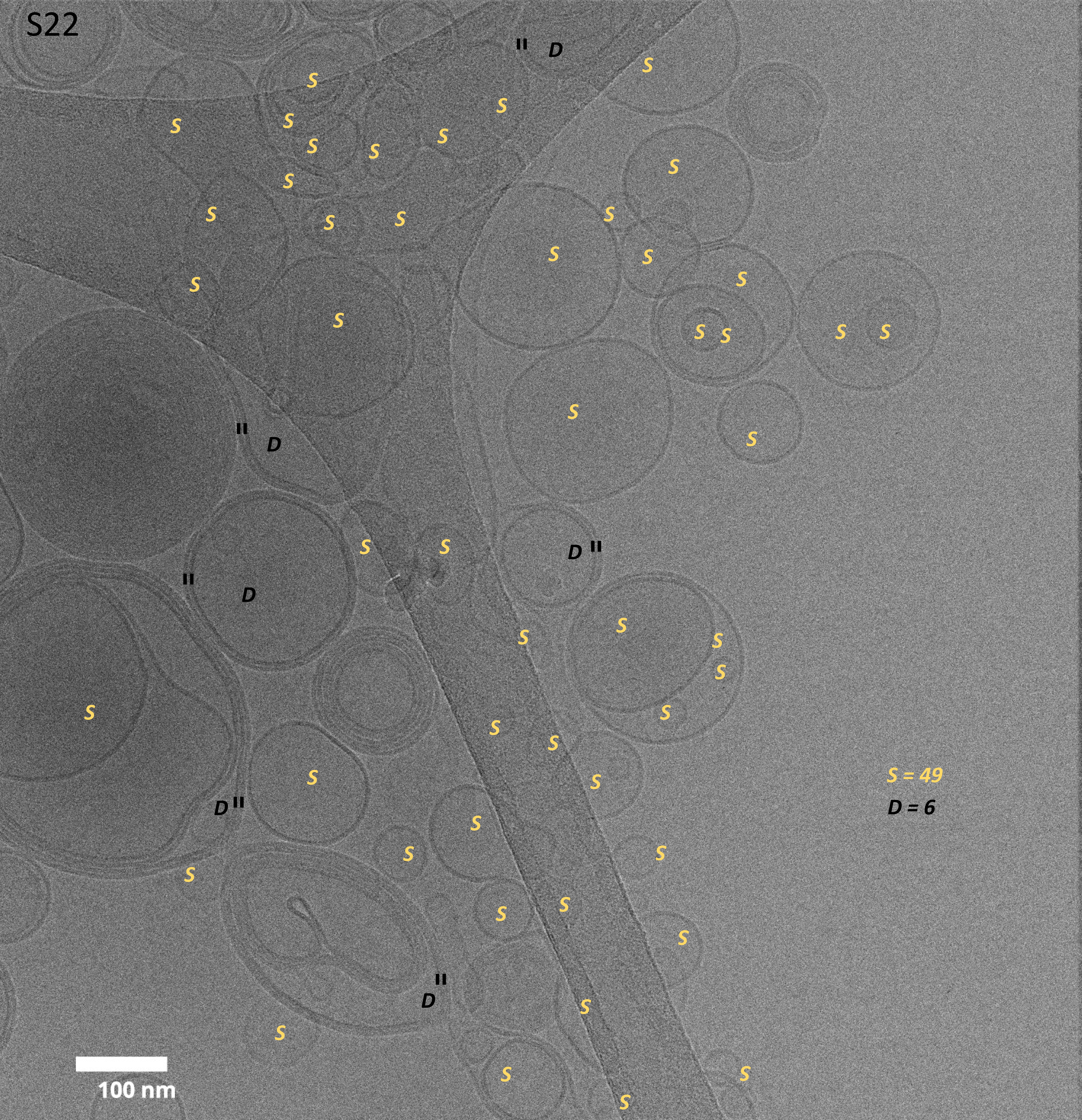
$S = 28$

$D = 4$



100 nm

S22



|| D

S

S

S

S

S

S

S

S

S

S

S

S

S

S

S

S

S

S

S

S

S

S

||

D

S

S

S

S

D ||

||

D

S

S

S

S

S

S

S

S

S

D ||

S

S

S

S

S

S

S

S

S

||
D

S

S

S

S

S

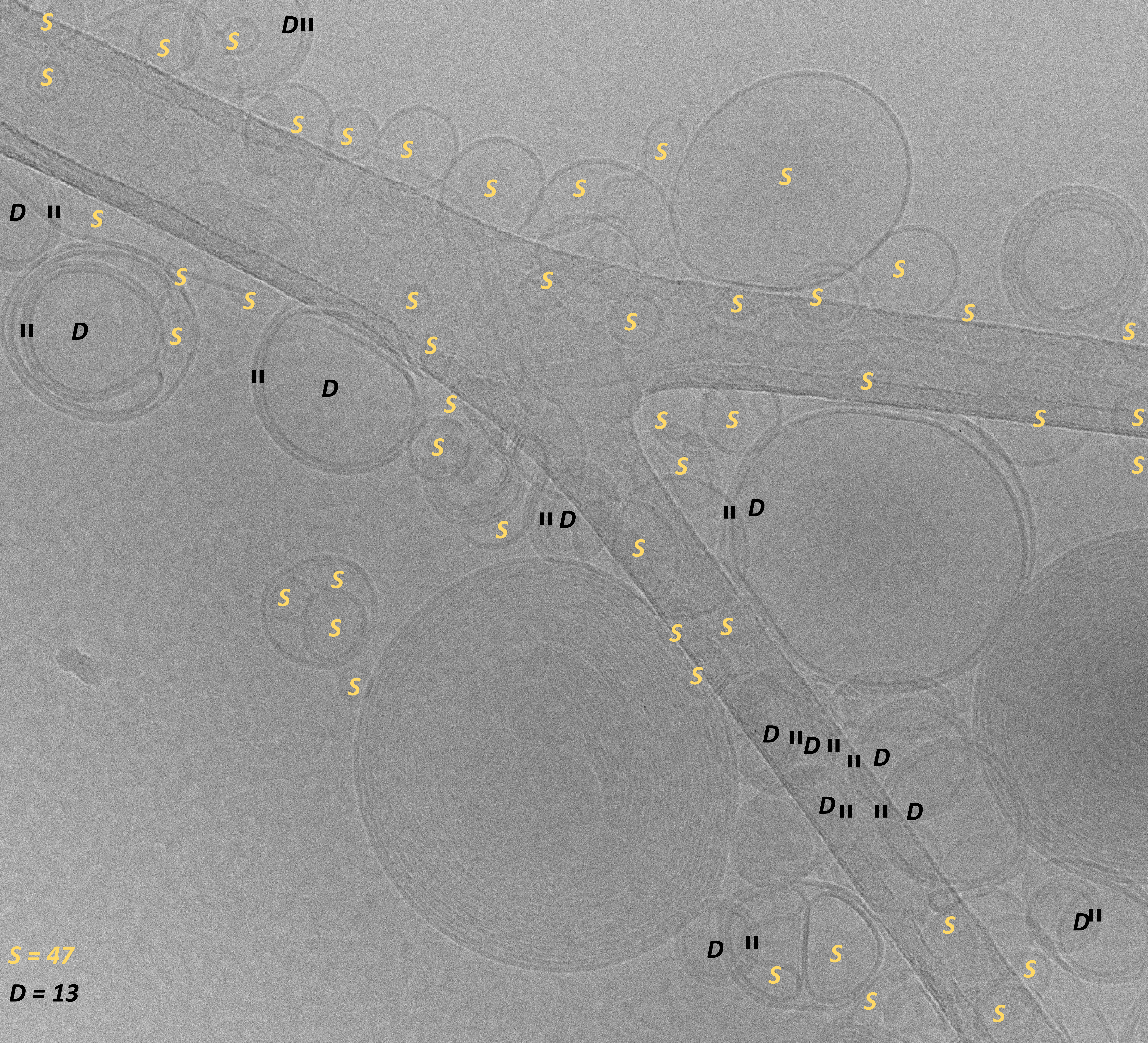
S = 49

D = 6



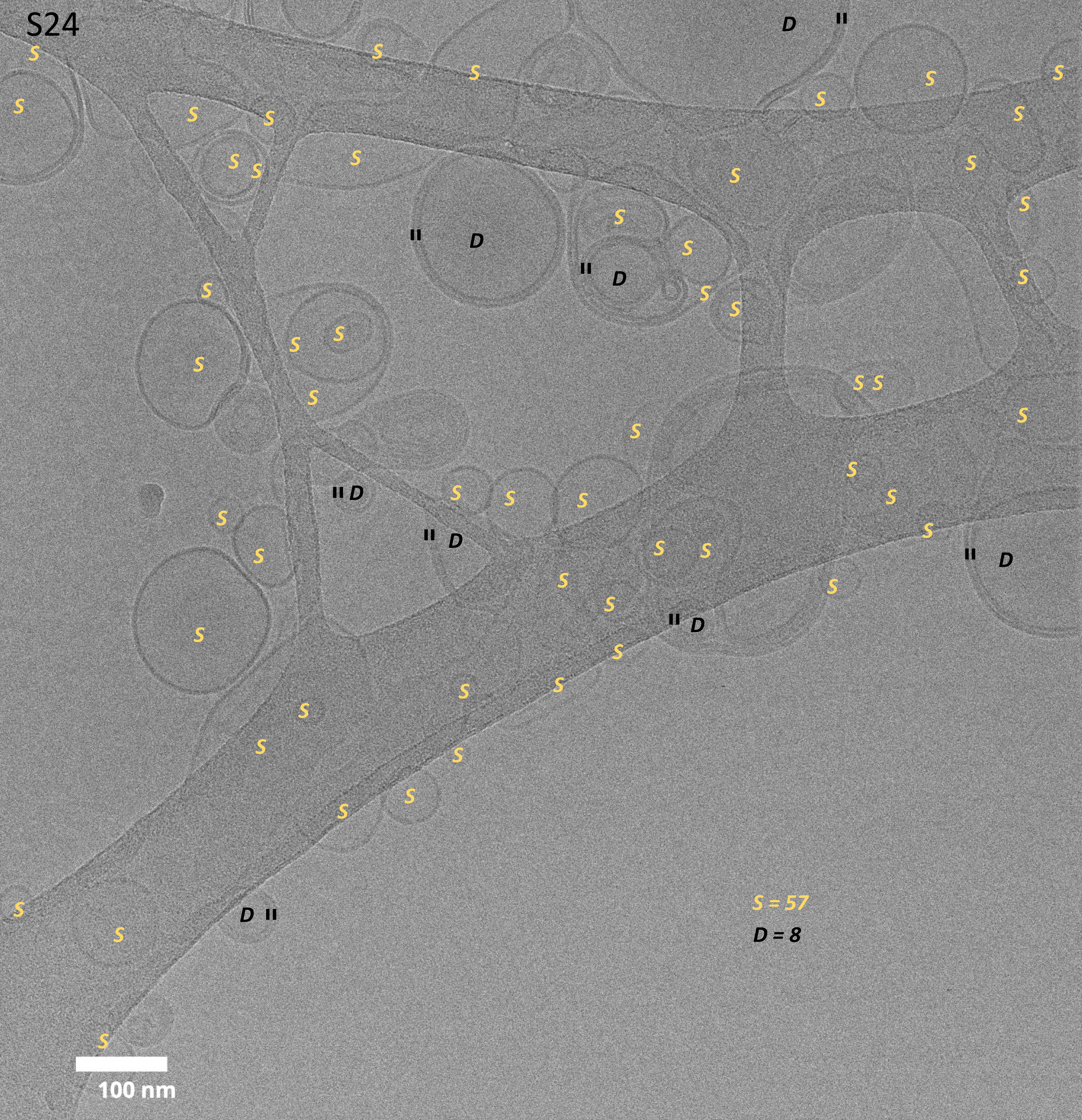
100 nm

S23



S = 47
D = 13

S24



D ||

S = 57
D = 8

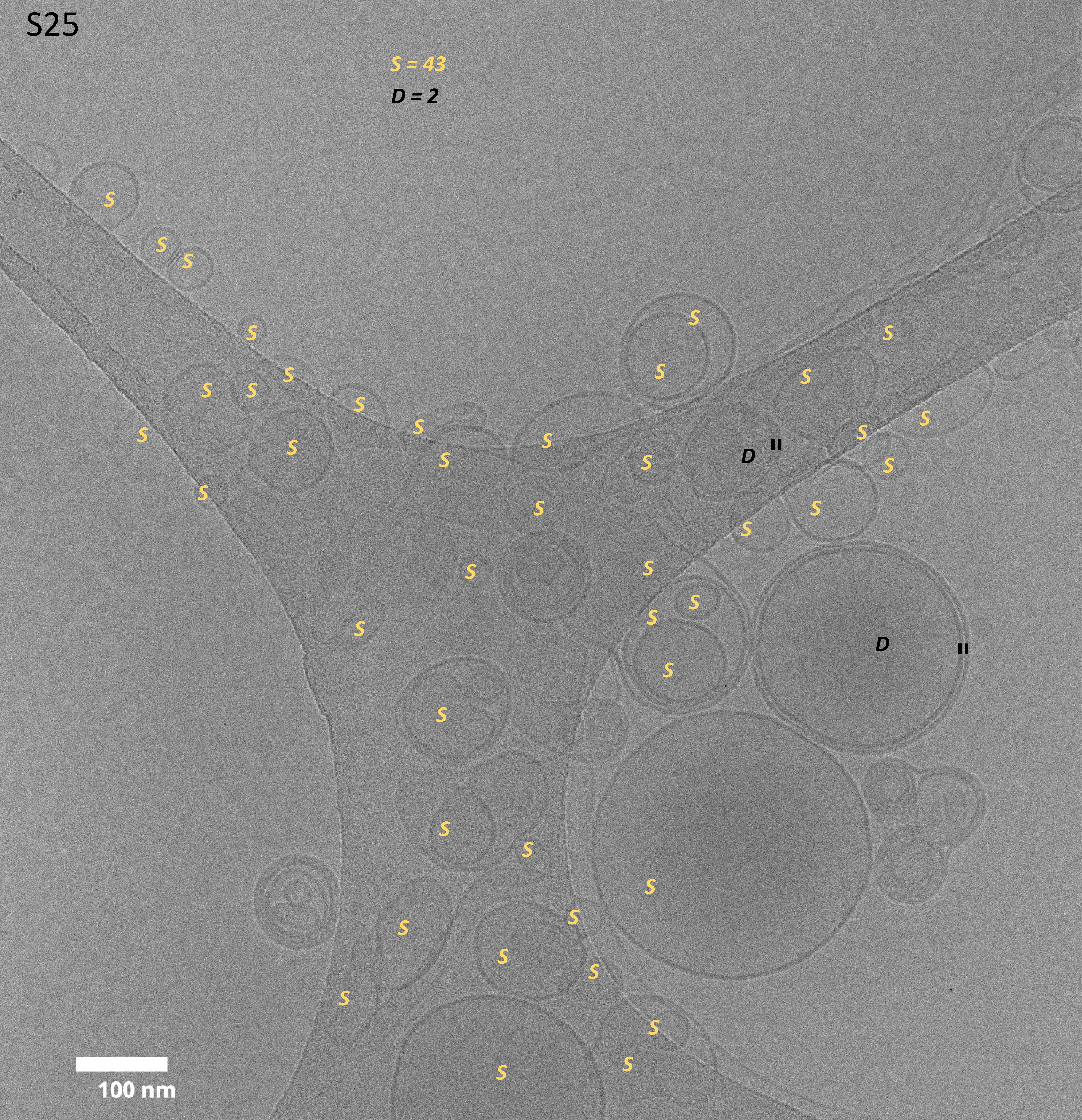
100 nm

S25

$S = 43$

$D = 2$

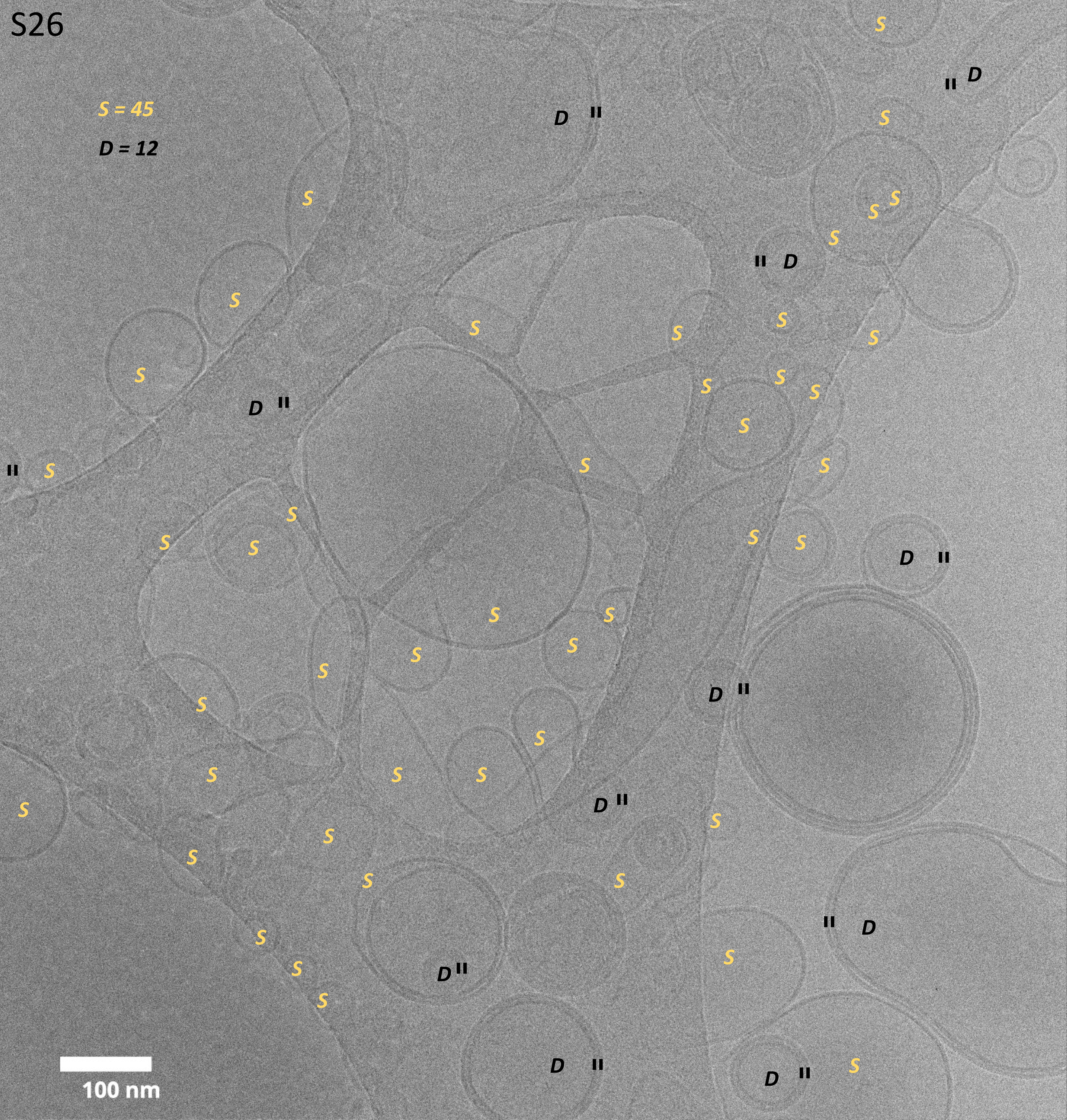
100 nm



S26

S = 45

D = 12



100 nm