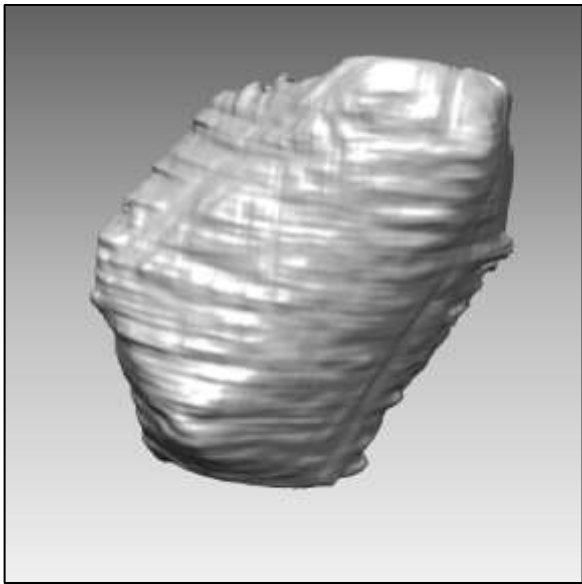


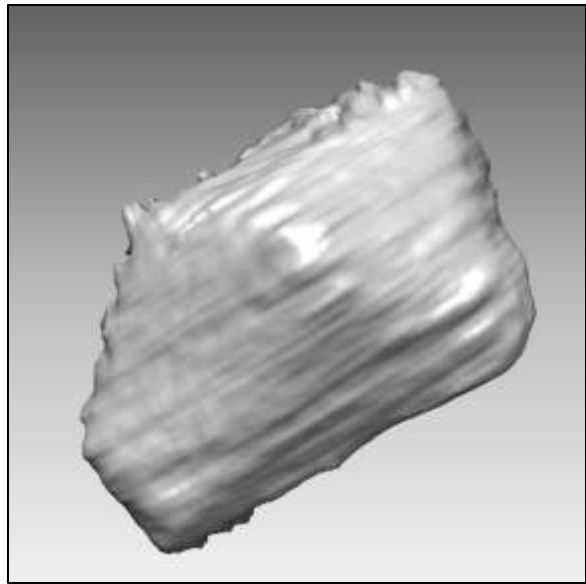
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Title	Classification of polyhedral shapes from individual anisotropically resolved cryo-electron tomography reconstructions
Author(s)	Bag, Sukantadev; Prentice, Michael B.; Liang, Mingzhi; Warren, Martin J.; Roy Choudhury, Kingshuk
Publication date	2016-06-13
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Type of publication	Article (peer-reviewed)
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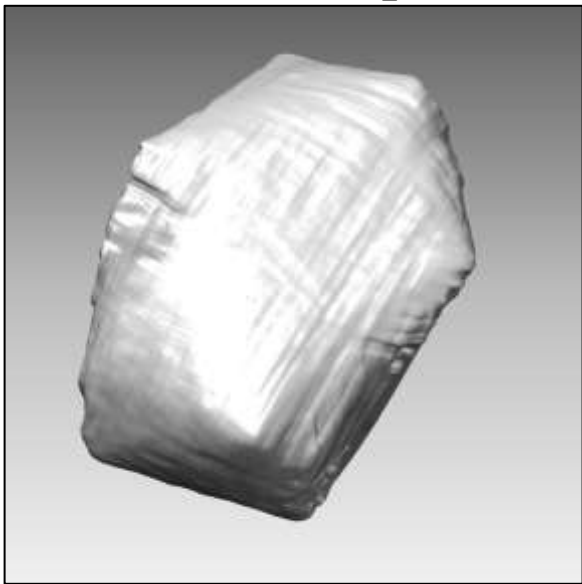
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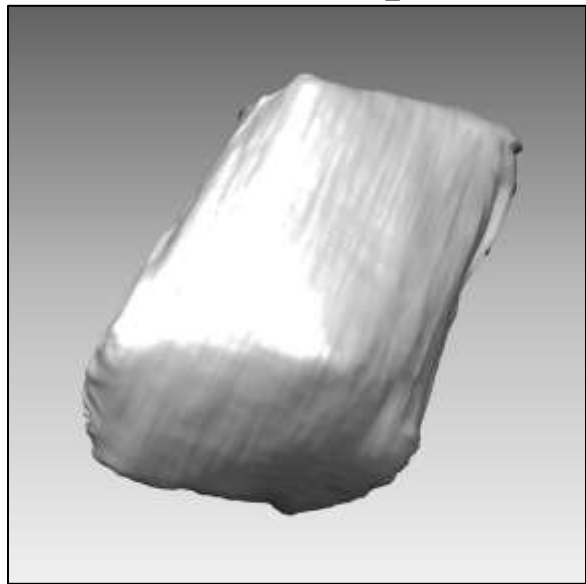
Metabolosome 05_01



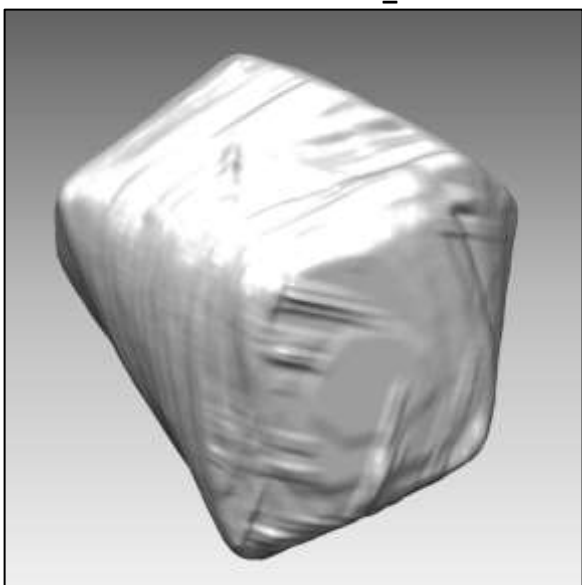
Metabolosome 05_02



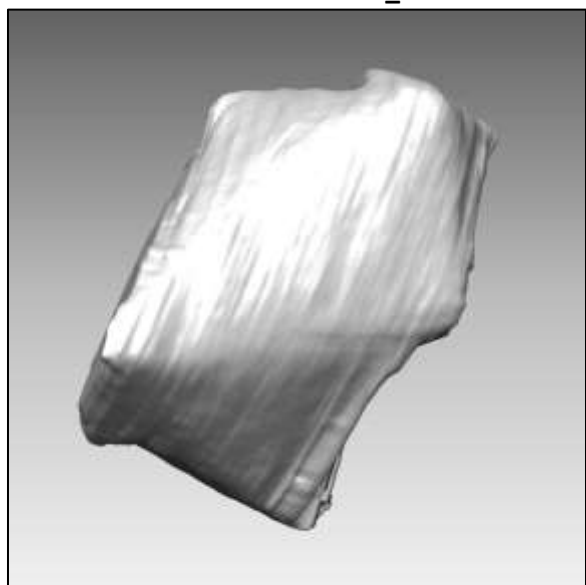
Metabolosome 13_01



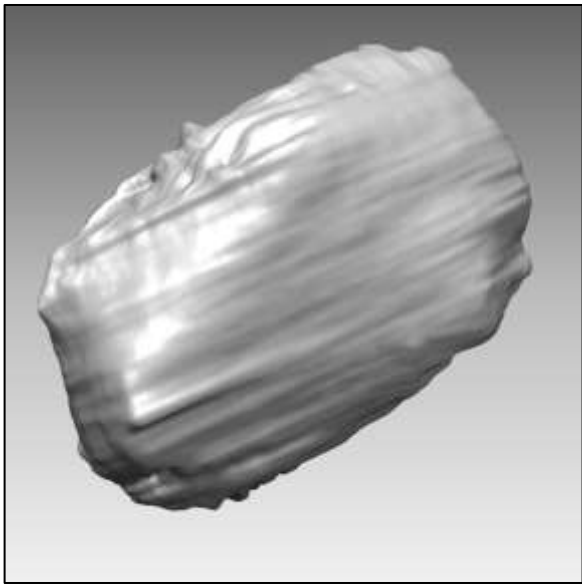
Metabolosome 13_02



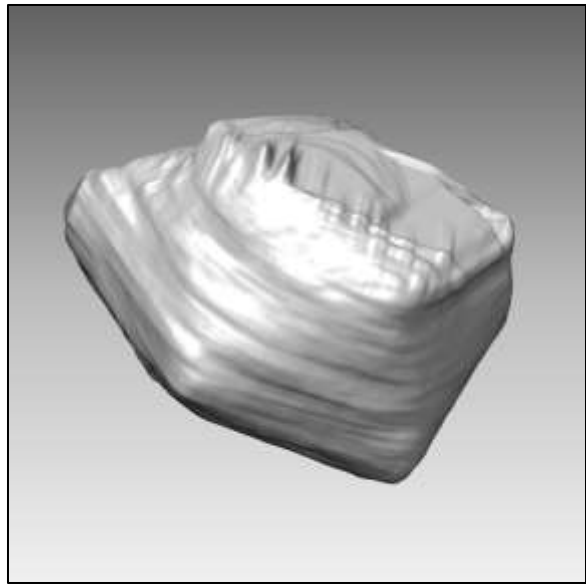
Metabolosome 13_03



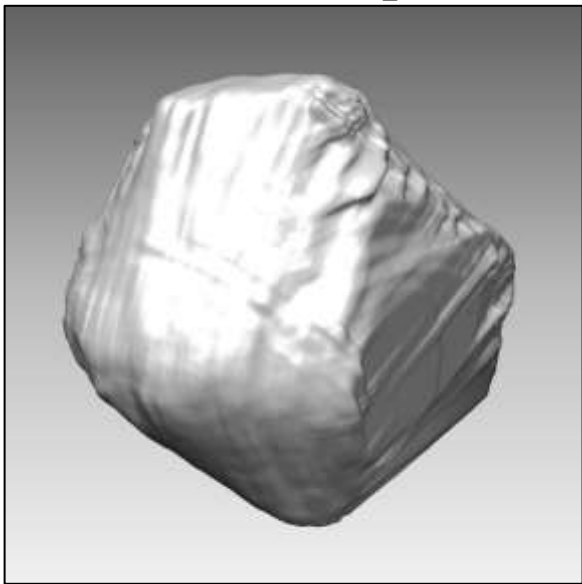
Metabolosome 13_04



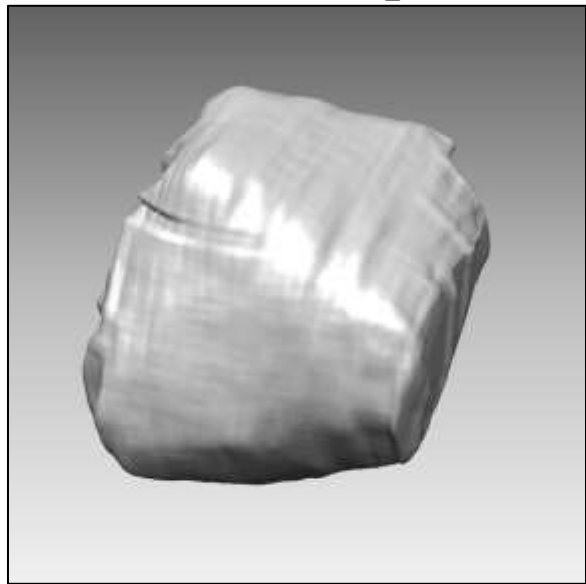
Metabolosome 13_05



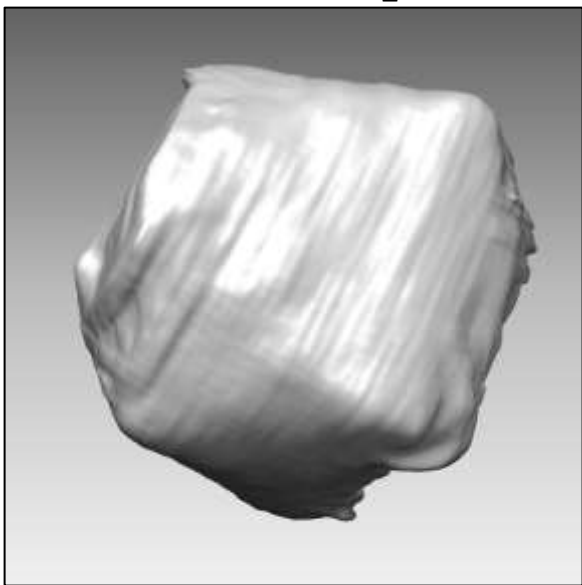
Metabolosome 13_06



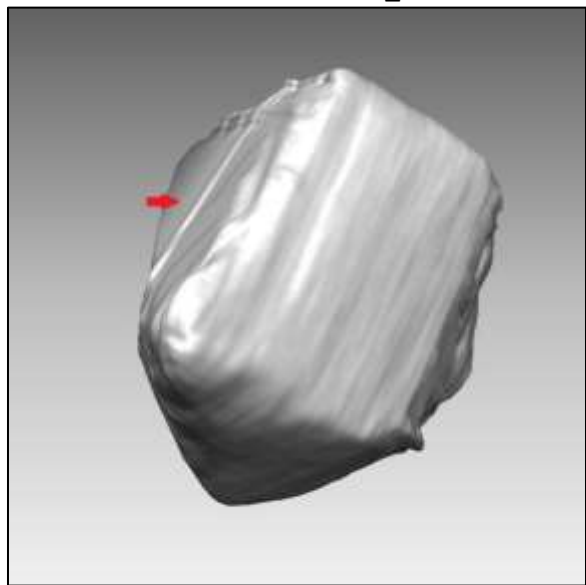
Metabolosome 13_07



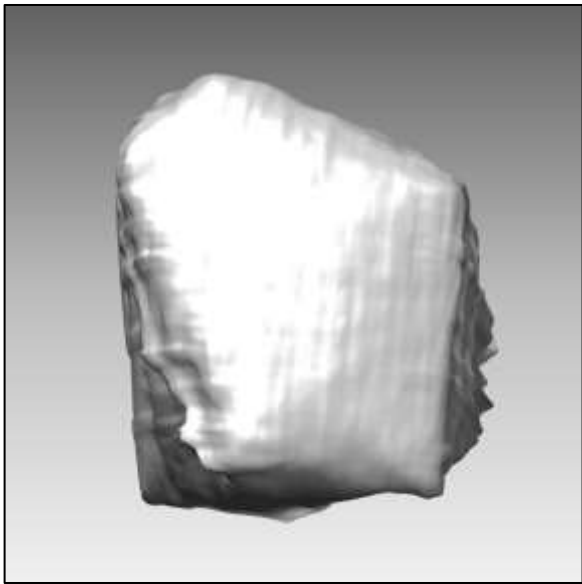
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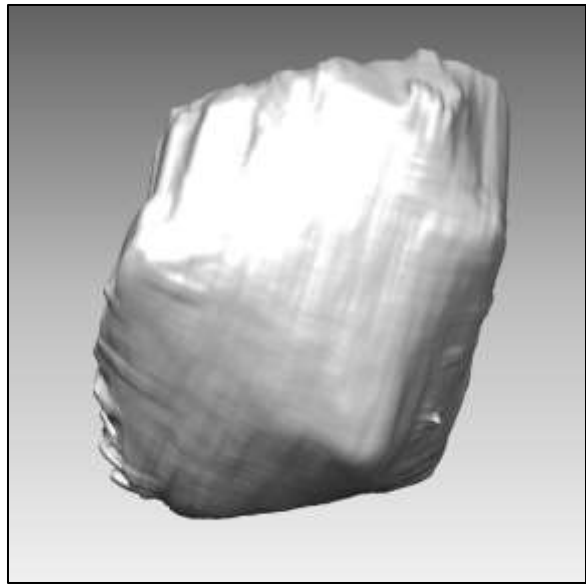
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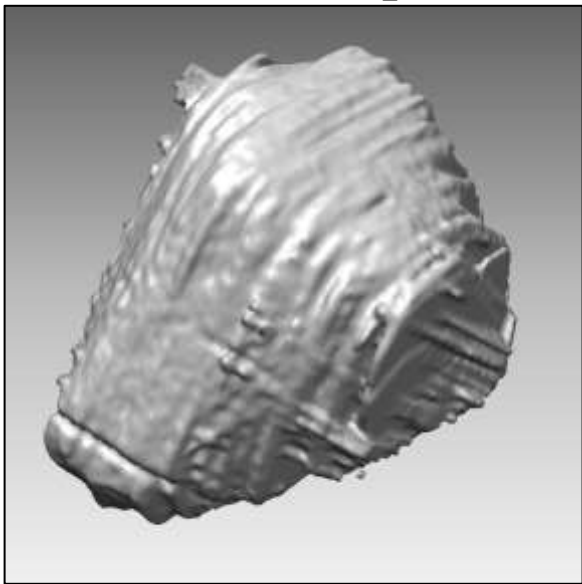
Metabolosome 13_12



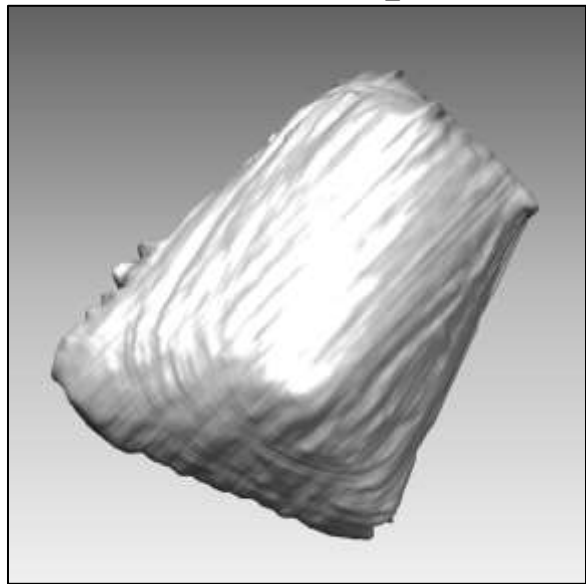
Metabolosome 13_13



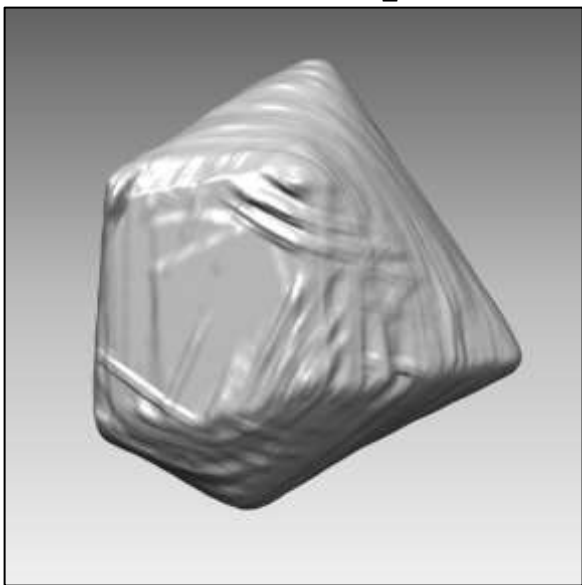
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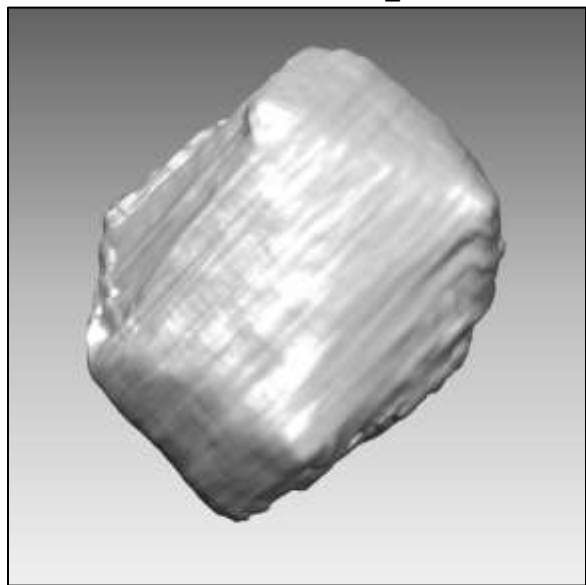
Metabolosome 14_01



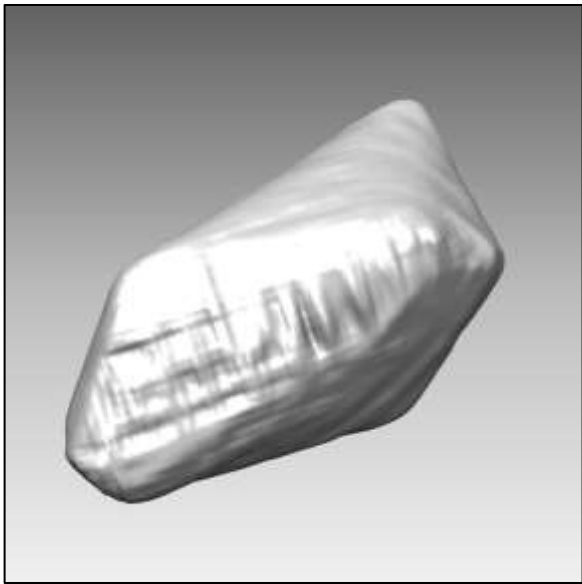
Metabolosome 14_02



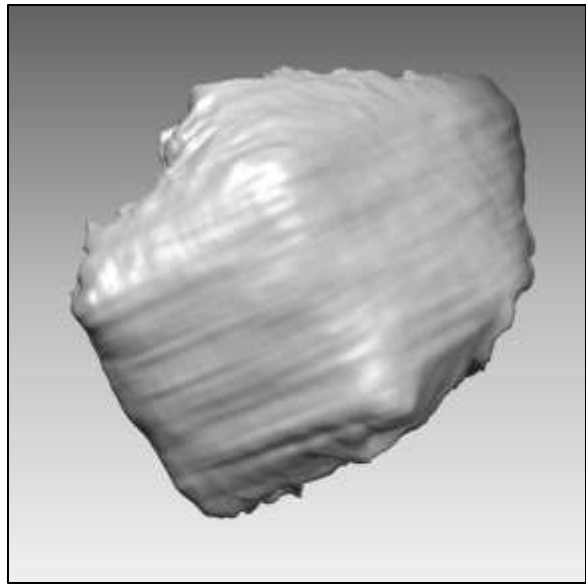
Metabolosome 20_01



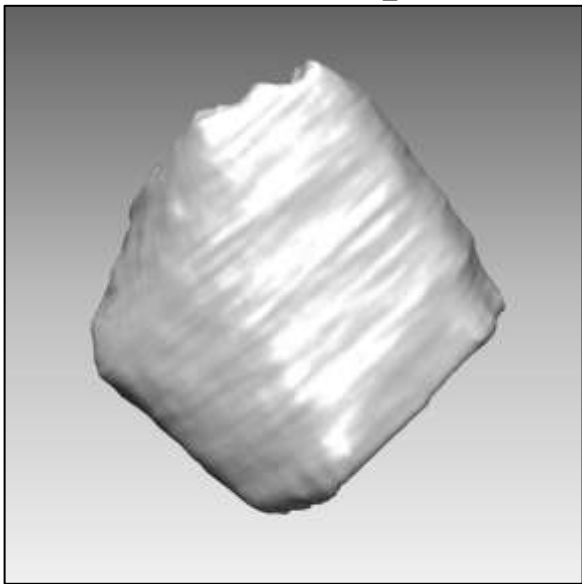
Metabolosome 20_02



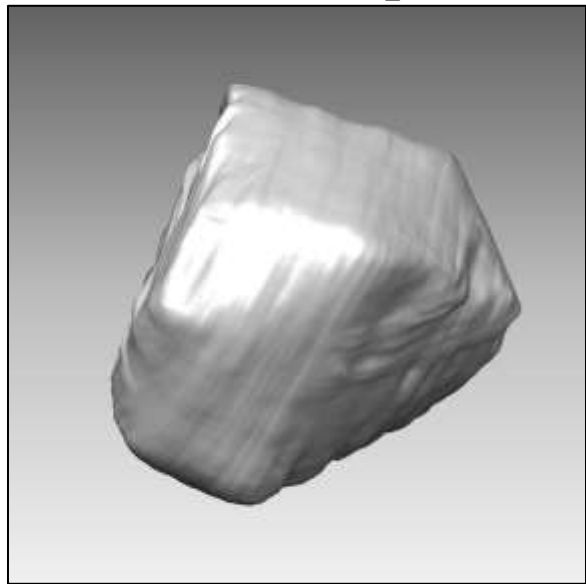
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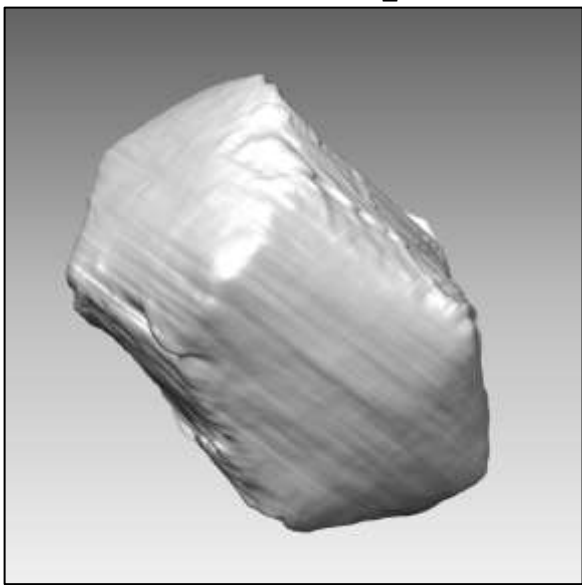
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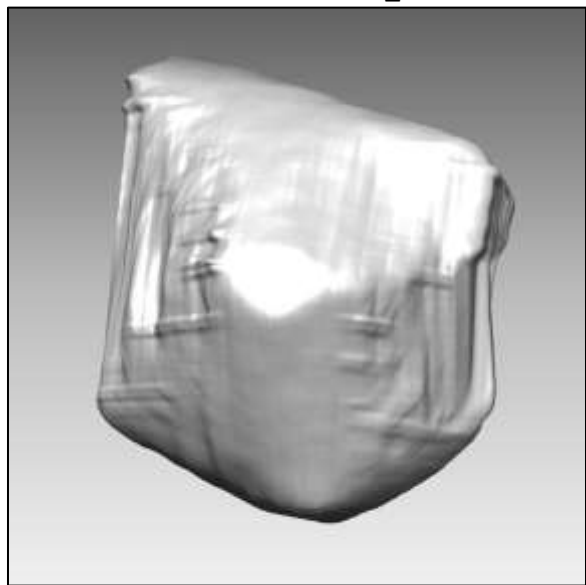
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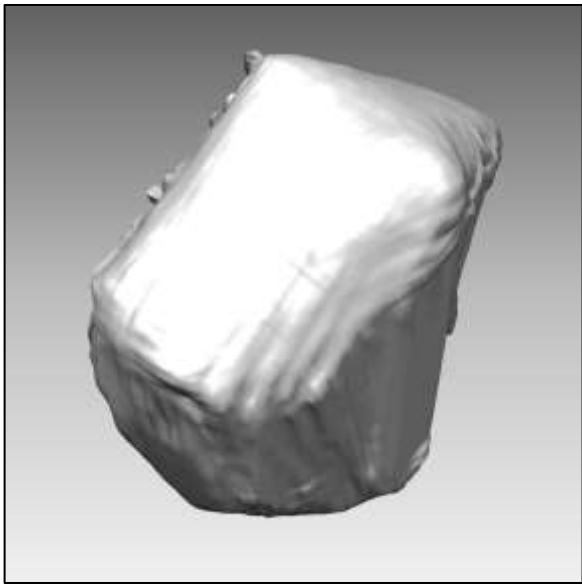
Metabolosome 20_08



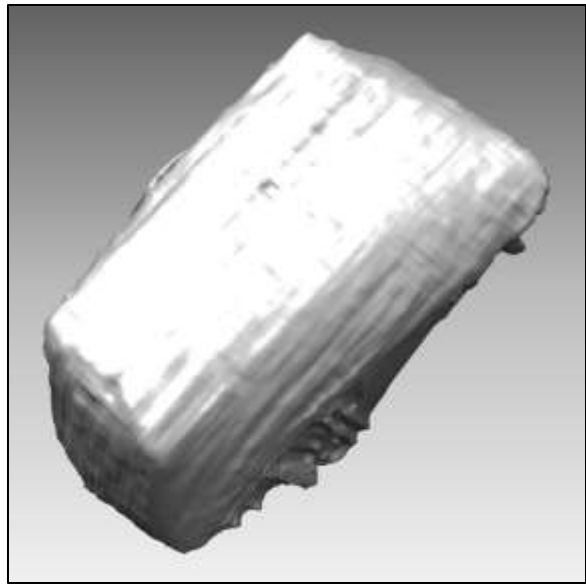
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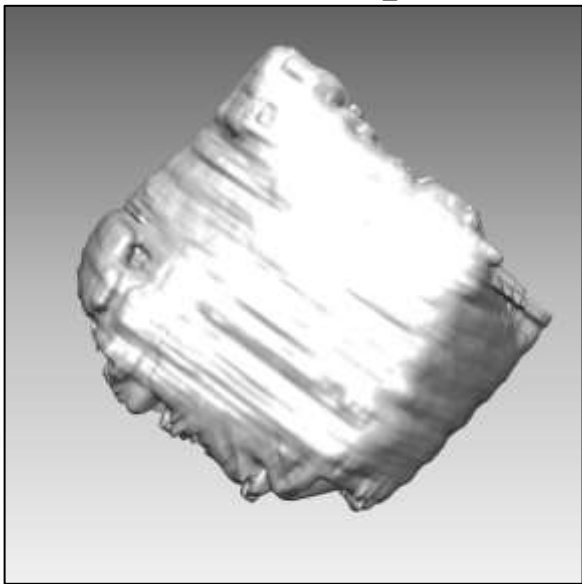
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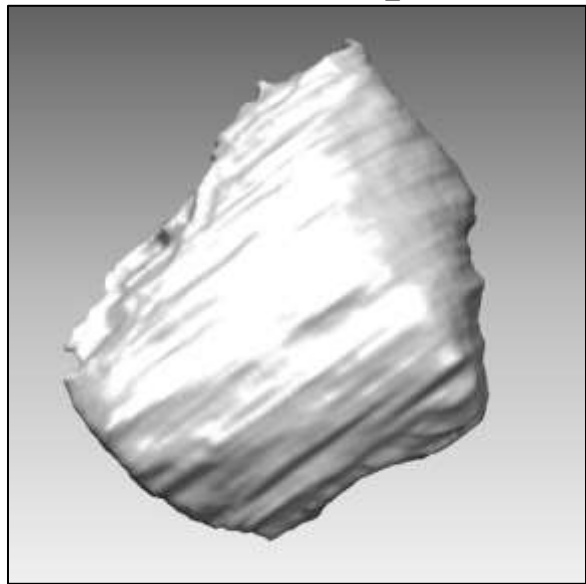
Metabolosome 20_11



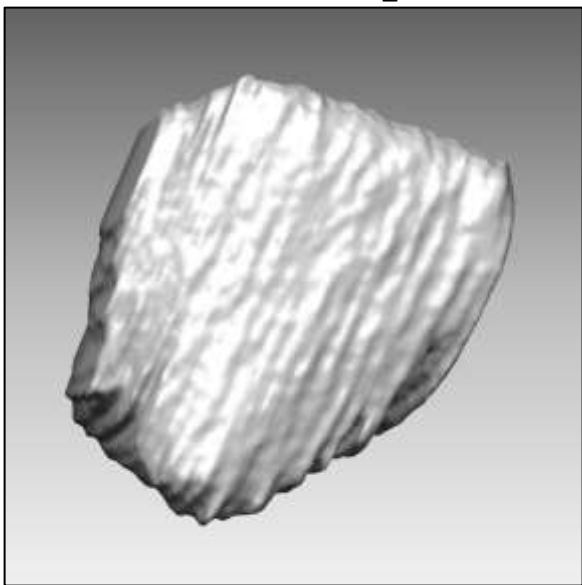
Metabolosome 34_01



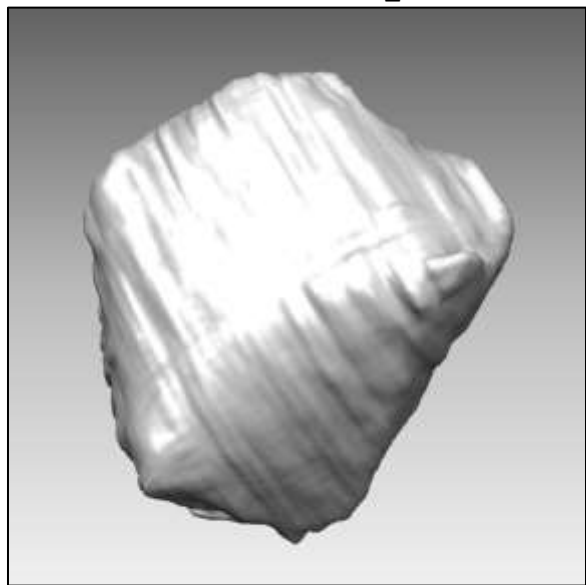
Metabolosome 34_02



Metabolosome 34_03



Metabolosome 41_01



Metabolosome 41_02

The above images are 2D representations (screenshots) of 30 segmented metabolosomes. The images are visualized using Chimera UCSF. The captions include Metabolosome identifier number which helps to relate their individual shapes from the following table and figures.

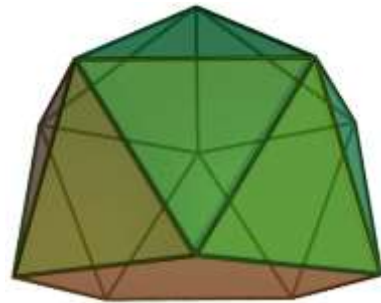
Metab. ID	Shape Name	Metab. ID	Shape Name
05_01	J17 - Gyroelongated square bipyramid	14_02	J86 - Sphenocorona
05_02	J11 - Gyroelongated pentagonal pyramid	20_01	J16 - Elongated pentagonal bipyramid
13_01	J16 - Elongated pentagonal bipyramid	20_02	J88 - Sphenomegacorona
13_02	J11 - Gyroelongated pentagonal pyramid	20_04	J50 - Biaugmented triangular prism
13_03	J16 - Elongated pentagonal bipyramid	20_05	J87 - Augmented sphenocorona
13_04	J86 - Sphenocorona	20_06	J86 - Sphenocorona
13_05	J86 - Sphenocorona	20_08	J87 - Augmented sphenocorona
13_06	J86 - Sphenocorona	20_09	J16 - Elongated pentagonal bipyramid
13_07	J16 - Elongated pentagonal bipyramid	20_10	J17 - Gyroelongated square bipyramid
13_08	J86 - Sphenocorona	20_11	J16 - Elongated pentagonal bipyramid
13_09	J88 - Sphenomegacorona	34_01	J16 - Elongated pentagonal bipyramid
13_12	J86 - Sphenocorona	34_02	J16 - Elongated pentagonal bipyramid
13_13	J54 - Augmented hexagonal prism	34_03	J16 - Elongated pentagonal bipyramid
13_14	J16 - Elongated pentagonal bipyramid	41_01	J62 - Metabidiminished icosahedron
14_01	J86 - Sphenocorona	41_02	J11 - Gyroelongated pentagonal pyramid

The above table provides the metabolosomes shapes predicted by SVM. The letter 'J' stands for Johnson Solids and the following number is the Johnson solids serial number, followed by the solid names.

The following figures provide graphical representations of the predicted shapes of the metabolosomes. The images are from Wikipedia.



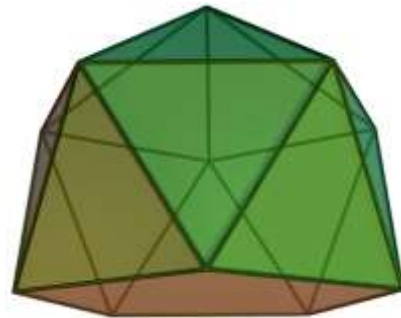
05_01: J17 - Gyroelongated square bipyramid



05_02: J11 - Gyroelongated pentagonal pyramid



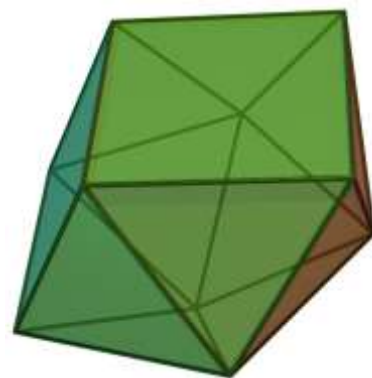
13_01: J16 - Elongated pentagonal bipyramid



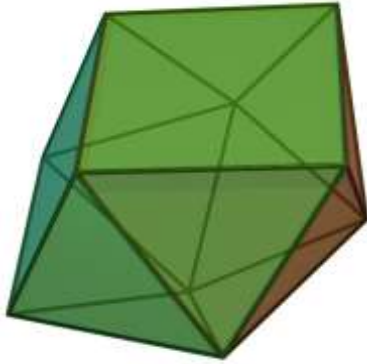
13_02: J11 - Gyroelongated pentagonal pyramid



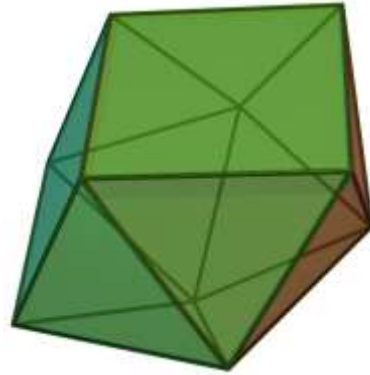
13_03: J16 - Elongated pentagonal bipyramid



13_04: J86 - Sphenocorona



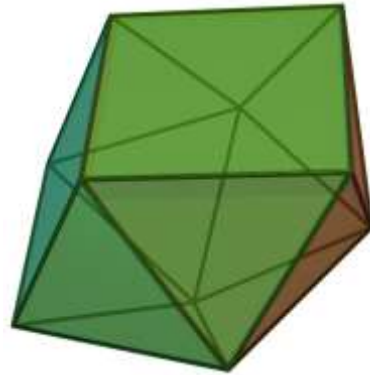
13_05: J86 - Sphenocorona



13_06: J86 - Sphenocorona



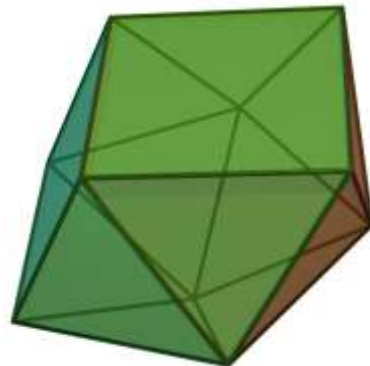
13_07: J16 - Elongated pentagonal bipyramid



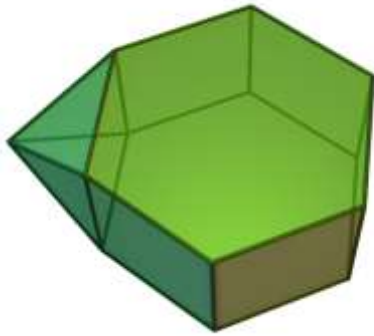
13_08: J86 - Sphenocorona



13_09: J88 - Sphenomegacorona



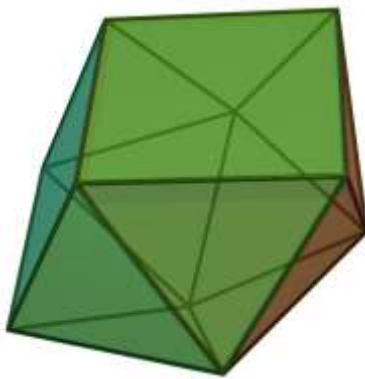
13_12: J86 - Sphenocorona



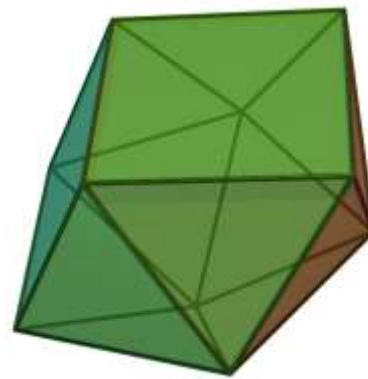
13_13: J54 - Augmented hexagonal prism



13_14: J16 - Elongated pentagonal bipyramid



14_01: J86 - Sphenocorona



14_02: J86 - Sphenocorona



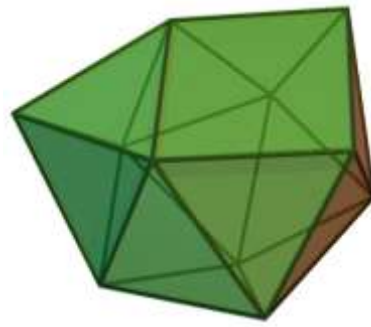
20_01: J16 - Elongated pentagonal bipyramid



20_02: J88 - Sphenomegacorona



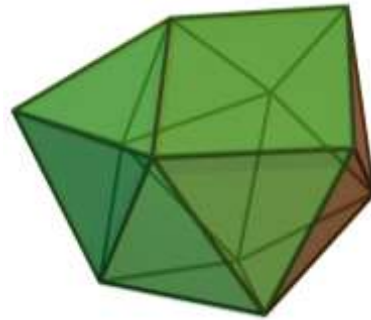
20_04: J50 - Biaugmented triangular prism



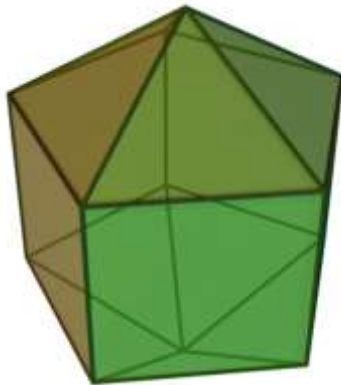
20_05: J87 - Augmented sphenocorona



20_06: J86 - Sphenocorona



20_08: J87 - Augmented sphenocorona



20_09: J16 - Elongated pentagonal bipyramid



20_10: J17 - Gyroelongated square bipyramid



20_11: J16 - Elongated pentagonal bipyramid



34_01: J16 - Elongated pentagonal bipyramid



34_02: J16 - Elongated pentagonal bipyramid



34_03: J16 - Elongated pentagonal bipyramid



41_01: J62 - Metabidiminished icosahedron



41_02: J11 - Gyroelongated pentagonal pyramid