**Table S1**: List and characteristics of the specimens selected for experiment #1 (incubation with <sup>15</sup>NH<sub>4</sub>), experiment #2 (incubation with <sup>15</sup>NO<sub>3</sub>), experiment #3 (feeding with <sup>13</sup>C-<sup>15</sup>N-*Artemia*) and as controls for NanoSIMS analysis. Juvenile (j) refers to specimens fixed for TEM with only a trochospiral test, adult (a) refers to specimens fixed for TEM that had produced a spherical final chamber.

| Fora<br>m# | Experimen<br>t | Incub<br>ation | Food particle<br>when sampled | Life stage (juvenile / adult) |            |   |
|------------|----------------|----------------|-------------------------------|-------------------------------|------------|---|
|            |                |                |                               | Beginning of the              | End of     | Remarks   |
|            | ,              | time           |                               | experiment                    | experiment |   |
| 126        | Control        | -              |                               | S                             | S          |   |
| 142        | Control        | -              |                               | j                             | j          | dead  |
| 166        | Control        | -              |                               | S                             | S          |   |
| 124        | Exp. 1         | 1 h            |                               | j                             | j          |   |
| 144        | Exp. 1         | 1 h            |                               | j                             | j          |   |
| 167        | Exp. 1         | 1 h            | yes                           | S                             | S          |   |
| 130        | Exp. 1         | 6 h            | yes                           | S                             | S          |   |
| 137        | Exp. 1         | 6 h            |                               | S                             | S          |   |
| 157        | Exp. 1         | 6 h            |                               | j                             | j          |   |
| 127        | Exp. 1         | 12 h           |                               | S                             | S          |   |
| 131        | Exp. 1         | 12 h           |                               | S                             | S          |   |
| 155        | Exp. 1         | 12 h           |                               | S                             | S          |   |
| 123        | Exp. 1         | 18 h           |                               | S                             | S          |   |
| 145        | Exp. 1         | 18 h           |                               | j                             | j          |   |
| 158        | Exp. 1         | 18 h           | yes                           | j                             | j          |   |
| 122        | Exp. 2         | 1 h            |                               | S                             | S          |   |
| 146        | Exp. 2         | 1 h            |                               | j                             | j          |   |
| 163        | Exp. 2         | 1 h            | yes                           | S                             | S          |   |
| 128        | Exp. 2         | 6 h            | yes                           | S                             | S          |   |
| 134        | Exp. 2         | 6 h            |                               | S                             | S          |   |
| 168        | Exp. 2         | 6 h            | yes                           | j                             | j          |   |
| 125        | Exp. 2         | 12 h           |                               | S                             | S          |   |
| 129        | Exp. 2         | 12 h           | yes                           | j                             | j          | dead  |
| 154        | Exp. 2         | 12 h           |                               | j                             | j          |   |
| 133        | Exp. 2         | 18 h           |                               | S                             | S          |   |
| 152        | Exp. 2         | 18 h           | yes                           | j                             | j          |   |
| 164        | Exp. 2         | 18 h           |                               | j                             | j          |   |
| 132        | Exp. 3         | 8 h            |                               | j                             | j          | dead  |
| 153        | Ехр. 3         | 8 h            |                               | j                             | j          | After 3h: no food particle visible                  |
| 165        | Ехр. 3         | 8 h            |                               | j                             | j          | After 3h: food particle still attached to the foram |