**附表1 ROV06、HM101站位沉积物古菌生物标志化合物含量（ng/g）和碳同位素比值δ13C（‰）**

**Table1 The contents (ng/g) and δ13C values (‰) of archaea biomarkers from the sediments of site ROV06 and site HM101**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cr/ Ph | PMI | Archaeol | *sn*2-OH-Ar | phytanol | phytanoic acid | *sn*2-OH-Ar/Ar |
| 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) |
| ROV06 站位 |
| 0-2 cm | 215 | 72 | 70 | 79 | 137 | 113 | 69 | 101 | 26 | 83 | 112 | 72 | 0.5 |
| 6-8 cm | 599 | 76 | 259 | 82 | 11 | 105 | 6 | 93 | 18 | 87 | 332 | 71 | 0.5 |
| 12-14 cm | 456 | 102 | 30 | 93 | 336 | 114 | 667 | 100 | 43 | 101 | 31 | 80 | 2 |
| 18-20 cm | 1645 | 99 | 90 | 96 | 145 | 108 | 284 | 102 | 39 | 121 | 34 | n.d. | 2 |
| 24-26 cm | 864 | 95 | 66 | 96 | 121 | 111 | 353 | 104 | 30 | 89 | 71 | 79 | 2.9 |
|  |
| HM101 站位 |
| 0-2 cm | 2596 | 55 | 574 | 105 | 935 | 104 | 2018 | 101 | 201 | 90 | 35 | 75 | 2.1 |
| 4-6 cm | 1820 | 55 | 506 | 106 | 24 | 119 | 95 | 107 | 14 | 90 | 58 | 75 | 4 |
| 8-10 cm | 2539 | 42 | 723 | 92 | 57 | 118 | 197 | 108 | 33 | 92 | 53 | n.d. | 3.4 |
| 12-14 cm | 3231 | 41 | 733 | 91 | 20 | 126 | 46 | 109 | 10 | 110 | 129 | 75 | 2.3 |
| 18-20 cm | 1657 | 59 | 506 | 109 | 10 | 123 | 17 | 109 | 14 | 82 | 129 | 76 | 1.7 |

注：n.d.—未检测到；ng/g—纳克/克；Cr：2，6，11，15四甲基十六烷；Ph：植烷；PMI：2,6,10,15,19五甲基二十烷；Archaeol：古醇；*sn2*-OH-Ar：*sn2*-羟基古醇；phytanol：植醇；phytanoic acid：植烷

**附表2 ROV06、HM101站位沉积物羧酸类生物标志化合物含量（ng/g）和碳同位素比值δ13C（‰）**

**Table2 The contents (ng/g) and δ13C values (‰) of carboxylic acid from the sediments of site ROV06 and site HM101**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *iso*-C15 | *ai*-C15 | C16:1ω5 | *i*-C17 | *ai*-C17 | C17:1ω6 | *ai*-C15/ *iso*-C15 | C16:1ω5/ *iso*-C15 |
| 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) | 含量 (ng/g) | δ13C (‰) |
| ROV06 站位 |
| 0-2 cm | 126 | 51 | 326 | 67 | 264 | 71 | 45 | 53 | 72 | 65 | 90 | 62 | 2.6 | 2.1 |
| 6-8 cm | 262 | 55 | 591 | 69 | 538 | 67 | 93 | 51 | 124 | 52 | 160 | 68 | 2.3 | 2.1 |
| 12-14 cm | 31 | 67 | 80 | 80 | 62 | 70 | 9 | 59 | 24 | 54 | 21 | 78 | 2.5 | 2.0 |
| 18-20 cm | 92 | 73 | 109 | 71 | 207 | 89 | 17 | 64 | 21 | 60 | 56 | 79 | 1.2 | 2.3 |
| 24-26 cm | 109 | 66 | 206 | 69 | 392 | 80 | 34 | n.d. | 50 | n.d. | 206 | 84 | 1.9 | 3.5 |
|  |
| HM101 站位 |
| 0-2 cm | 178 | 53 | 186 | 43 | 221 | 60 | 60 | 49 | 53 | 36 | 47 | 48 | 1 | 1.2 |
| 4-6 cm | 171 | 43 | 181 | 42 | 241 | 61 | 71 | 44 | 41 | 41 | 42 | 42 | 1.1 | 1.4 |
| 8-10 cm | 199 | 42 | 210 | 43 | 270 | 60 | 66 | 44 | 43 | 43 | 39 | 45 | 1.1 | 1.4 |
| 12-14 cm | 273 | 51 | 295 | 50 | 417 | 72 | 120 | 45 | 79 | 41 | 79 | 49 | 1.1 | 1.5 |
| 18-20 cm | 127 | 44 | 204 | 44 | 203 | 67 | 46 | 43 | 57 | 40 | 38 | 48 | 1.6 | 1.6 |

注：n.d.—未检测到；ng/g—纳克/克

**附表3 ROV06、HM101站位沉积物正构烷烃含量（ng/g）**

**SupplementaryTable3 The content (ng/g) of *n*-alkane biomarkers from the sediment of site ROV06 and site HM101**

|  |  |
| --- | --- |
|  | Content (ng/g) |
| C16 | C17 | C18 | C19 | C20 | C21 | C22 | C23 | C24 | C25 | C26 | C27 | C28 | C29 | C30 | C31 | C32 | C33 | CPI |
| ROV06站位 |
| 0-2 cm | 67  | 42  | 105  | 25  | 67  | 61  | 41  | 54  | 34  | 48  | 36  | 47  | 31  | 108  | 42  | 112  | 17  | 44  | 2.5 |
| 6-8 cm | 255  | 234  | 488  | 195  | 278  | 974  | 114  | 160  | 122  | 203  | 181  | 211  | 114  | 490  | 160  | 443  | 88  | 204  | 2.6 |
| 12-14 cm | 3  | 13  | 47  | 25  | 45  | 42  | 29  | 40  | 27  | 55  | 42  | 84  | 47  | 188  | 64  | 218  | 35  | 90  | 3.2 |
| 18-20 cm | 67  | 106  | 210  | 92  | 136  | 113  | 74  | 110  | 70  | 142  | 92  | 284  | 115  | 508  | 122  | 543  | 6  | 192  | 4.5 |
| 24-26 cm | 52  | 61  | 155  | 73  | 107  | 115  | 64  | 88  | 68  | 146  | 102  | 132  | 70  | 287  | 98  | 299  | 42  | 118  | 2.9 |
|  |
| HM101站位 |
| 0-2 cm | 557  | 999  | 313  | 805  | 929  | 673  | 918  | 611  | 1002  | 912  | 1024  | 843  | 2523  | 877  | 2997  | 375  | 1206  | 2.7 |
| 4-6 cm | 707  | 1037  | 577  | 731  | 1126  | 716  | 920  | 666  | 1053  | 834  | 1149  | 757  | 2679  | 788  | 2894  | 304  | 1083  | 3.0 |
| 8-10 cm | 371  | 1035  | 544 | 792  | 889  | 676  | 834  | 648  | 1055  | 912  | 1043  | 778  | 2413  | 849  | 2704  | 309  | 1192  | 2.3 |
| 12-14 cm | 1102  | 1632  | 758  | 911  | 1030  | 647  | 791  | 532  | 914  | 789  | 713  | 503  | 1718  | 485  | 2035  | 263  | 802  | 2.7 |
| 18- 20 cm | 858  | 950  | 449  | 623  | 559  | 443  | 483  | 384  | 703  | 473  | 471  | 531  | 1323  | 556  | 1649  | 261  | 717  | 2.4 |

注：ng/g—纳克/克；CPI=1/2[∑C25-35（奇碳数）/∑C24-34（偶碳数）+∑C25-35（奇碳数）/∑C26-36（偶碳数）]

**附表4ROV06、HM101站位沉积物正构烷烃碳同位素比值δ13C（‰）**

**Supplementary Table 4 The δ13C values (‰) of *n*-alkane biomarkers from the sediment of site ROV06 and site HM101**

|  |  |
| --- | --- |
|  | δ13C (‰) |
| C16 | C17 | C18 | C19 | C20 | C21 | C22 | C23 | C24 | C25 | C26 | C27 | C28 | C29 | C30 | C31 | C32 | C33 |
| ROV06站位 |
| 0-2 cm | n.d. | n.d. | 30 | n.d. | 34 | 33 | 33 | 28 | 32 | n.d. | n.d. | 26 | n.d. | 32 | n.d. | 28 | n.d. | 29 |
| 6-8 cm | n.d. | n.d. | 31 | 32 | 30 | 30 | 33 | 26 | 32 | 27 | 30 | 26 | 27 | 32 | n.d. | 28 | n.d. | 30 |
| 12-14 cm | n.d. | n.d. | 26 | 32 | 30 | 30 | 31 | 28 | 28 | 27 | 30 | 29 | 30 | 32 | n.d. | 29 | 26 | 28 |
| 18-20 cm | n.d. | n.d. | 31 | 31 | 30 | 30 | 31 | 28 | 28 | 28 | 29 | 29 | 30 | 33 | 26 | 29 | 29 | 28 |
| 24-26 cm | n.d. | n.d. | 32 | 31 | 32 | 29 | 31 | 25 | 31 | 28 | 29 | 27 | 31 | 34 | 28 | 29 | 27 | 29 |
|  |
| HM101站位 |
| 0-2 cm | n.d. | 29 | 33 | 32 | 32 | 28 | 31 | 28 | 31 | 27 | 28 | 27 | 30 | 32 | 29 | n.d. | 28 | 28 |
| 4-6 cm | n.d. | n.d. | 30 | 32 | 29 | n.d. | n.d. | 28 | 28 | 27 | 26 | 30 | 30 | 29 | 29 | 29 | 31 | 28 |
| 8-10 cm | n.d. | n.d. | 30 | 33 | 30 | 32 | n.d. | 29 | 33 | 28 | 28 | 31 | 30 | 30 | 26 | 28 | 28 | 29 |
| 12-14 cm | n.d. | 30 | 30 | 31 | 31 | 29 | 22 | 31 | n.d. | 28 | 25 | 26 | 32 | 32 | 29 | 29 | 29 | 28 |
| 18- 20 cm | n.d. | 29 | 30 | 31 | 30 | 29 | 21 | 25 | 25 | 28 | 25 | 26 | 31 | 31 | 29 | 29 | 28 | 29 |

注：n.d.—未检测到；