

*Supplementary Material*

**Scenarios of deoxygenation of the Eastern Tropical North Pacific  
during the past millennium as a window into the future of Oxygen  
Minimum Zones**

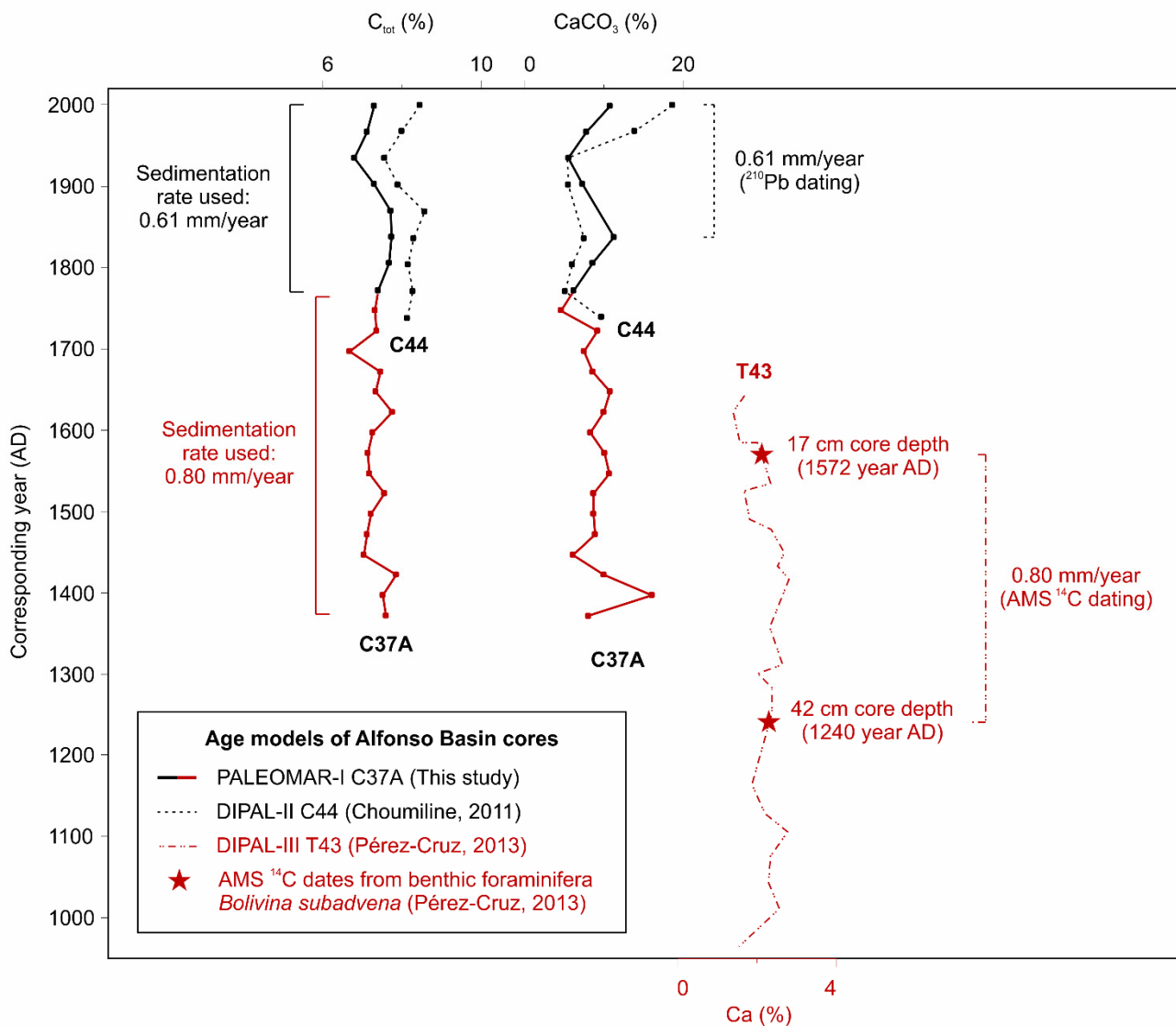
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Timothy W. Lyons**

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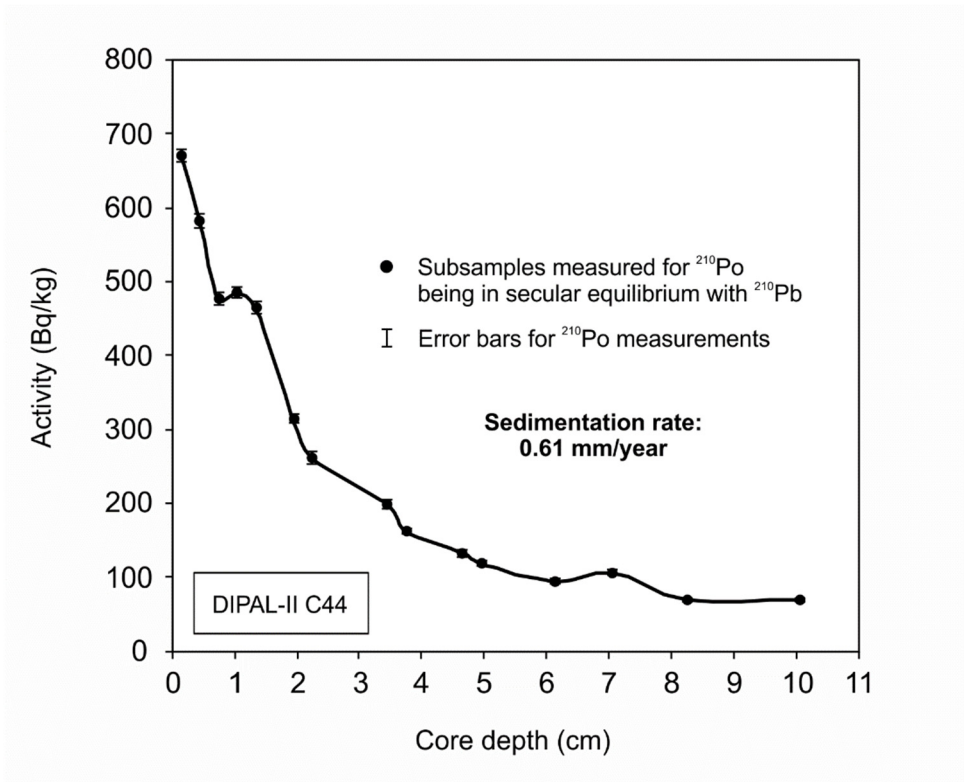
## 1 Supplementary Figures and Tables

### 1.1 Supplementary Figures

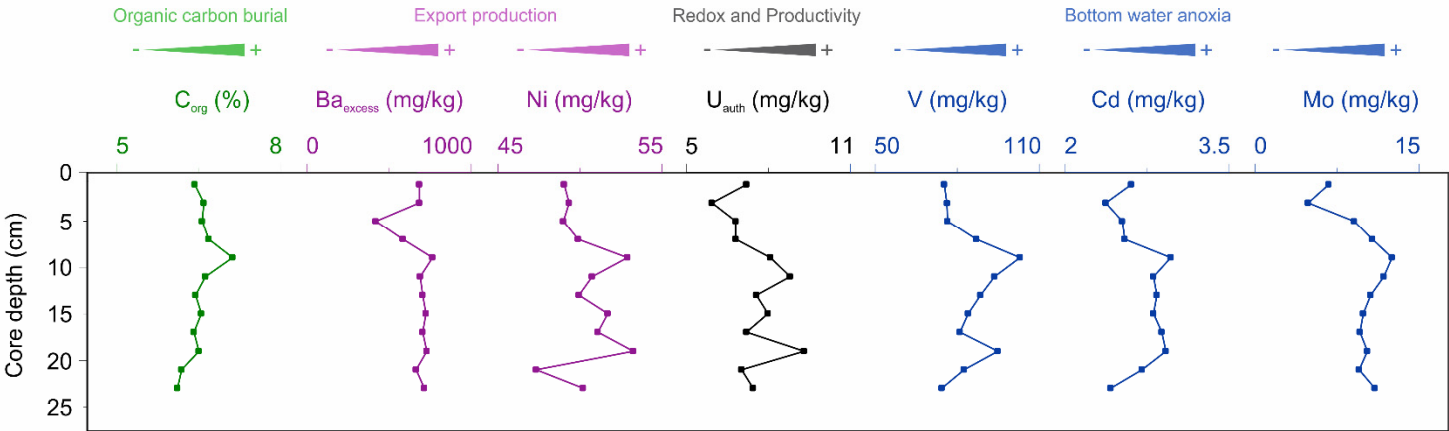
**Supplementary Figure 1.** Comparison of age models produced for the following sediment cores collected in Alfonso Basin: DIPAL-II C44 (Choumiline, 2011), DIPAL-III T43 (Pérez-Cruz, 2013) and PALEOMAR-I C37A (this study). To demonstrate that the cores represent the same sedimentary layers and can be properly correlated we show how total carbon ( $C_{tot}$ ),  $CaCO_3$  and Ca plotted against time covary for every age model (Choumiline et al., 2010; Choumiline, 2011; Pérez-Cruz, 2013; Choumiline et al., 2017). In our age model for core PALEOMAR-I C37A we extrapolate the sedimentation rate of 0.61 mm/year to the uppermost core section (0 to 15 cm) and use 0.8 mm/year for the lowermost segment (15 to 50 cm).



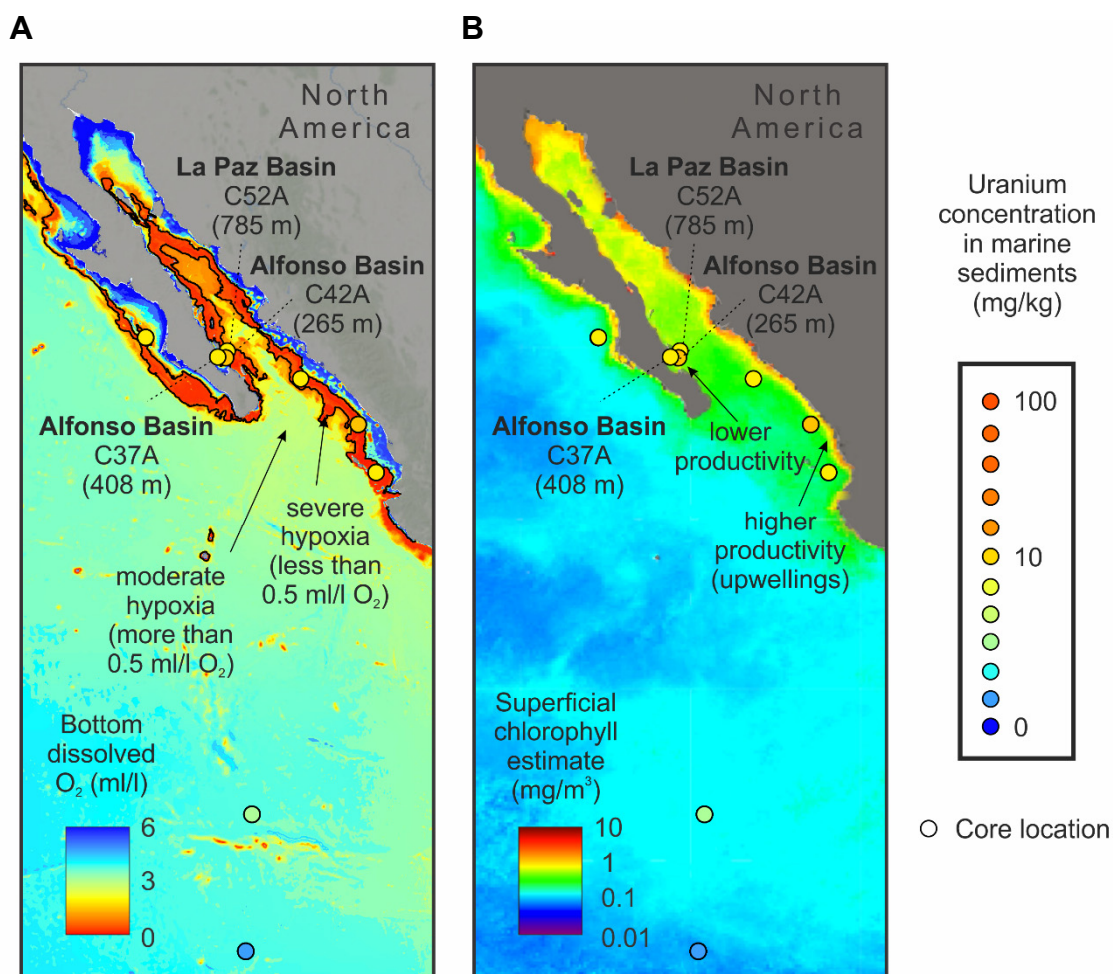
**Supplementary Figure 2.** Dating results of the  $^{210}\text{Pb}$  method applied to sedimentary material from core DIPAL-II C44 collected in Alfonso Basin (modified from Choumiline, 2011).



**Supplementary Figure 3.** Geochemical profiles of the solid phase from core C52A from La Paz Basin collected during PALEOMAR-I expedition to the Gulf of California.



**Supplementary Figure 4.** Uranium concentration in various core tops of the Gulf of California and adjacent Pacific, **(A)** bottom dissolved oxygen, and **(B)** superficial chlorophyll estimate from the studied marine OMZ settings of ETNP (Alfonso Basin and La Paz Basin), (Oxygen based on World Ocean Atlas, 2005, Garcia et al., 2006; superficial chlorophyll estimates by SeaWiFS satellite sensor published by OBP/ NASA; core top U data from EarthChem SedDB database)



## 1.2 Supplementary Tables

**Supplementary Table 1.** Dissolved Fe and Mn in pore water profiles of cores C37A and C52A collected during PALEOMAR-I expedition to the Gulf of California.

| Core                 | Depth range (cm) | Depth midpoint (cm) | Fe    | Mn   |
|----------------------|------------------|---------------------|-------|------|
|                      |                  |                     | (μM)  |      |
| C37A (Alfonso Basin) | 0-2              | 1                   | 8.77  | 0.47 |
|                      | 2-4              | 3                   | 15.79 | 0.47 |
|                      | 4-6              | 5                   | 15.58 | 0.44 |
|                      | 6-8              | 7                   | 13.42 | 0.47 |
|                      | 8-10             | 9                   | 12.41 | 0.50 |
|                      | 10-12            | 11                  | 9.93  | 0.51 |
|                      | 12-14            | 13                  | 7.05  | 0.42 |
|                      | 14-16            | 15                  | 5.90  | 0.40 |
|                      | 16-18            | 17                  | 4.32  | 0.40 |
|                      | 18-20            | 19                  | 2.27  | 0.46 |
|                      | 20-22            | 21                  | 1.74  | 0.40 |
|                      | 22-24            | 23                  | 1.03  | 0.35 |
|                      | 24-26            | 25                  | 1.08  | 0.34 |
|                      | 26-28            | 27                  | 0.58  | 0.32 |
|                      | 28-30            | 29                  | 0.41  | 0.30 |
|                      | 30-32            | 31                  | 0.93  | 0.31 |
|                      | 32-34            | 33                  | 0.37  | 0.22 |
|                      | 34-36            | 35                  | 0.33  | 0.22 |
|                      | 36-38            | 37                  | 1.53  | 0.26 |
|                      | 38-40            | 39                  | 0.62  | 0.24 |
|                      | 40-42            | 41                  | 1.11  | 0.16 |
|                      | 42-44            | 43                  | 0.35  | 0.15 |
|                      | 44-46            | 45                  | 1.04  | 0.15 |
|                      | 46-48            | 47                  | 0.36  | 0.09 |
|                      | 48-50            | 49                  | 0.59  | 0.11 |
| C52A (La Paz Basin)  | 0-2              | 1                   | 9.38  | 0.85 |
|                      | 2-4              | 3                   | 8.15  | 1.01 |
|                      | 4-6              | 5                   | 2.55  | 1.10 |
|                      | 6-8              | 7                   | 0.95  | 1.05 |
|                      | 8-10             | 9                   | 0.81  | 1.12 |
|                      | 10-12            | 11                  | 1.09  | 1.13 |
|                      | 12-14            | 13                  | 0.43  | 1.08 |
|                      | 14-16            | 15                  | 0.50  | 1.04 |
|                      | 16-18            | 17                  | 1.03  | 0.96 |
|                      | 18-20            | 19                  | 0.71  | 0.94 |
|                      | 20-22            | 21                  | 1.08  | 0.93 |
|                      | 22-24            | 23                  | 0.91  | 0.77 |

**Supplementary Table 2.** Elemental composition of the solid phase from cores C37A, C42A and C52A collected during PALEOMAR-I expedition to the Gulf of California. Corresponding age is presented for each horizon only for core C37A.

| Core                 | Depth range (cm) | Depth midpoint (cm) | Age in years AD | C <sub>org</sub> | Al  | Fe  | Ba      | Cd  | Mo   | Ni   | U    | V     | Ba <sub>excess</sub> | U <sub>auth</sub> |
|----------------------|------------------|---------------------|-----------------|------------------|-----|-----|---------|-----|------|------|------|-------|----------------------|-------------------|
|                      |                  |                     |                 | C <sub>org</sub> |     |     | (mg/kg) |     |      |      |      |       |                      |                   |
| C37A (Alfonso Basin) | 0-2              | 1                   | 1999            | 6.01             | 4.9 | 2.5 | 406.4   | 2.5 | 6.3  | 40.3 | 9.9  | 124.7 | 406.4                | 8.1               |
|                      | 2-4              | 3                   | 1967            | 6.18             | 5.1 | 2.6 | 419.3   | 2.6 | 6.4  | 41.9 | 10.1 | 115.8 | 419.2                | 8.3               |
|                      | 4-6              | 5                   | 1934            | 6.13             | 5.1 | 2.6 | 440.0   | 3.4 | 9.3  | 41.3 | 9.7  | 133.4 | 439.9                | 7.9               |
|                      | 6-8              | 7                   | 1902            | 6.42             | 5.0 | 2.5 | 454.3   | 3.4 | 10.2 | 44.2 | 10.1 | 137.1 | 454.3                | 8.4               |
|                      | 8-10             | 9                   | 1870            |                  | 4.7 | 2.3 | 439.9   | 3.5 | 9.9  | 44.0 | 11.3 | 139.6 | 439.9                | 9.6               |
|                      | 10-12            | 11                  | 1837            | 6.39             | 4.8 | 2.3 | 430.4   | 3.8 | 9.0  | 45.3 | 13.0 | 150.6 | 430.4                | 11.3              |
|                      | 12-14            | 13                  | 1805            | 6.65             | 5.0 | 2.5 | 476.6   | 4.1 | 9.5  | 47.9 | 13.5 | 156.8 | 476.6                | 11.7              |
|                      | 14-16            | 15                  | 1772            | 6.66             | 5.3 | 2.6 | 479.3   | 3.8 | 9.2  | 48.3 | 12.4 | 141.8 | 479.3                | 10.6              |
|                      | 16-18            | 17                  | 1747            | 6.76             | 4.3 | 2.1 | 416.0   | 3.8 | 9.2  | 41.2 | 9.2  | 117.0 | 415.9                | 7.7               |
|                      | 18-20            | 19                  | 1722            | 6.26             | 4.9 | 2.4 | 458.0   | 3.9 | 8.7  | 45.8 | 11.6 | 149.7 | 458.0                | 9.9               |
|                      | 22-24            | 23                  | 1672            | 6.43             | 5.0 | 2.6 | 480.5   | 4.8 | 12.7 | 49.5 | 10.9 | 167.1 | 480.5                | 9.1               |
|                      | 24-26            | 25                  | 1647            | 6.05             | 4.8 | 2.4 | 458.3   | 4.6 | 11.2 | 46.3 | 12.9 | 157.0 | 458.3                | 11.2              |
|                      | 26-28            | 27                  | 1622            | 6.56             | 4.9 | 2.4 | 459.1   | 4.7 | 8.2  | 50.4 | 12.4 | 154.9 | 459.1                | 10.7              |
|                      | 28-30            | 29                  | 1597            | 6.25             | 5.0 | 2.5 | 461.5   | 5.4 | 13.4 | 46.9 | 10.8 | 160.0 | 461.4                | 9.0               |
|                      | 30-32            | 31                  | 1572            | 5.93             | 5.0 | 2.5 | 485.5   | 5.0 | 13.0 | 46.4 | 11.2 | 164.2 | 485.5                | 9.5               |
|                      | 32-34            | 33                  | 1547            | 5.89             | 4.9 | 2.5 | 468.1   | 4.8 | 11.2 | 47.7 | 11.8 | 160.6 | 468.1                | 10.1              |
|                      | 34-36            | 35                  | 1522            | 6.53             | 5.1 | 2.6 | 488.8   | 5.3 | 12.9 | 51.6 | 11.9 | 172.4 | 488.7                | 10.1              |
|                      | 36-38            | 37                  | 1497            | 6.18             | 5.1 | 2.5 | 470.3   | 4.3 | 10.7 | 48.9 | 11.1 | 167.5 | 470.3                | 9.4               |
|                      | 38-40            | 39                  | 1472            | 6.04             | 5.1 | 2.5 | 441.8   | 3.7 | 9.3  | 46.1 | 11.3 | 146.4 | 441.8                | 9.5               |
|                      | 40-42            | 41                  | 1447            | 6.30             | 5.1 | 2.5 | 472.7   | 4.7 | 13.5 | 48.9 | 10.1 | 161.0 | 472.7                | 8.3               |
|                      | 42-44            | 43                  | 1422            | 6.65             | 4.7 | 2.4 | 481.5   | 7.0 | 14.2 | 51.4 | 14.2 | 170.8 | 481.5                | 12.5              |
| C52A (La Paz Basin)  | 44-46            | 45                  | 1397            | 5.60             | 4.6 | 2.4 | 372.2   | 2.9 | 6.8  | 42.8 | 14.0 | 124.0 | 372.2                | 12.3              |
|                      | 46-48            | 47                  | 1372            | 6.62             | 4.6 | 2.3 | 440.1   | 5.0 | 13.3 | 46.3 | 9.9  | 148.5 | 440.1                | 8.2               |
|                      | 48-50            | 49                  | 1347            |                  | 4.8 | 2.4 | 491.6   | 5.2 | 15.2 | 50.0 | 12.9 | 165.9 | 491.5                | 11.2              |
|                      | 0-2              | 1                   | -               | 6.41             | 4.3 | 1.8 | 682.8   | 2.6 | 6.7  | 49.1 | 8.8  | 75.0  | 682.8                | 7.2               |
|                      | 2-4              | 3                   | -               | 6.58             | 4.3 | 1.9 | 681.1   | 2.4 | 4.9  | 49.4 | 7.5  | 76.0  | 681.1                | 6.0               |
|                      | 4-6              | 5                   | -               | 6.55             | 4.3 | 1.9 | 419.8   | 2.5 | 9.1  | 49.0 | 8.3  | 76.5  | 419.8                | 6.8               |
|                      | 6-8              | 7                   | -               | 6.68             | 4.3 | 1.9 | 580.4   | 2.5 | 10.7 | 49.9 | 8.4  | 86.8  | 580.4                | 6.8               |
|                      | 8-10             | 9                   | -               | 7.12             | 4.6 | 1.9 | 763.3   | 3.0 | 12.6 | 52.9 | 9.7  | 102.8 | 763.2                | 8.1               |
|                      | 10-12            | 11                  | -               | 6.61             | 4.4 | 1.8 | 689.6   | 2.8 | 11.8 | 50.7 | 10.4 | 93.4  | 689.5                | 8.8               |
|                      | 12-14            | 13                  | -               | 6.43             | 4.4 | 1.9 | 704.3   | 2.8 | 10.6 | 49.9 | 9.2  | 88.4  | 704.3                | 7.6               |
|                      | 14-16            | 15                  | -               | 6.54             | 4.6 | 1.9 | 723.0   | 2.8 | 9.9  | 51.7 | 9.6  | 83.9  | 722.9                | 8.0               |
|                      | 16-18            | 17                  | -               | 6.40             | 4.6 | 1.9 | 703.2   | 2.9 | 9.6  | 51.1 | 8.8  | 80.9  | 703.2                | 7.2               |
| C42A                 | 18-20            | 19                  | -               | 6.49             | 4.8 | 2.0 | 728.1   | 2.9 | 10.3 | 53.2 | 11.1 | 94.7  | 728.1                | 9.3               |
|                      | 20-22            | 21                  | -               | 6.17             | 4.3 | 1.9 | 661.3   | 2.7 | 9.5  | 47.3 | 8.6  | 82.2  | 661.3                | 7.0               |
|                      | 22-24            | 23                  | -               | 6.10             | 4.5 | 2.0 | 714.1   | 2.4 | 10.9 | 50.2 | 9.1  | 74.3  | 714.1                | 7.5               |
|                      | Superficial      |                     | -               | 2.96             | 2.3 | 1.0 | 175.7   | 5.3 | 0.8  | 26.8 | 14.3 | 26.0  | 175.7                | 13.2              |

**Supplementary Table 3.** Al-normalized concentration values (mg/kg / %) in the solid phase from cores C37A, C42A and C52A collected during PALEOMAR-I expedition to the Gulf of California. Corresponding age is presented for each horizon only for core C37A.

| Core                 | Depth range (cm) | Depth midpoint (cm) | Age in years AD | Ba/Al  | Cd/Al | Mo/Al | Ni/Al | U/Al | V/Al  |
|----------------------|------------------|---------------------|-----------------|--------|-------|-------|-------|------|-------|
| C37A (Alfonso Basin) | 0-2              | 1                   | 1999            | 83.14  | 0.51  | 1.30  | 8.24  | 2.02 | 25.51 |
|                      | 2-4              | 3                   | 1967            | 82.48  | 0.52  | 1.26  | 8.25  | 1.99 | 22.78 |
|                      | 4-6              | 5                   | 1934            | 86.33  | 0.67  | 1.83  | 8.10  | 1.91 | 26.18 |
|                      | 6-8              | 7                   | 1902            | 91.02  | 0.67  | 2.03  | 8.86  | 2.02 | 27.47 |
|                      | 8-10             | 9                   | 1870            | 92.84  | 0.75  | 2.09  | 9.29  | 2.39 | 29.45 |
|                      | 10-12            | 11                  | 1837            | 90.32  | 0.80  | 1.90  | 9.51  | 2.72 | 31.60 |
|                      | 12-14            | 13                  | 1805            | 94.71  | 0.82  | 1.88  | 9.52  | 2.67 | 31.16 |
|                      | 14-16            | 15                  | 1772            | 90.57  | 0.72  | 1.74  | 9.12  | 2.35 | 26.80 |
|                      | 16-18            | 17                  | 1747            | 96.88  | 0.89  | 2.14  | 9.60  | 2.15 | 27.25 |
|                      | 18-20            | 19                  | 1722            | 93.21  | 0.80  | 1.77  | 9.32  | 2.36 | 30.46 |
|                      | 22-24            | 23                  | 1672            | 95.64  | 0.95  | 2.54  | 9.85  | 2.17 | 33.26 |
|                      | 24-26            | 25                  | 1647            | 95.36  | 0.97  | 2.32  | 9.64  | 2.68 | 32.66 |
|                      | 26-28            | 27                  | 1622            | 93.93  | 0.97  | 1.68  | 10.31 | 2.55 | 31.69 |
|                      | 28-30            | 29                  | 1597            | 92.34  | 1.09  | 2.69  | 9.39  | 2.17 | 32.01 |
|                      | 30-32            | 31                  | 1572            | 98.07  | 1.01  | 2.63  | 9.36  | 2.26 | 33.16 |
|                      | 32-34            | 33                  | 1547            | 95.05  | 0.98  | 2.28  | 9.69  | 2.40 | 32.61 |
|                      | 34-36            | 35                  | 1522            | 96.30  | 1.05  | 2.55  | 10.17 | 2.35 | 33.97 |
|                      | 36-38            | 37                  | 1497            | 92.50  | 0.85  | 2.10  | 9.62  | 2.19 | 32.95 |
|                      | 38-40            | 39                  | 1472            | 86.89  | 0.73  | 1.83  | 9.06  | 2.22 | 28.79 |
|                      | 40-42            | 41                  | 1447            | 92.52  | 0.91  | 2.63  | 9.57  | 1.97 | 31.51 |
| C52A (La Paz Basin)  | 42-44            | 43                  | 1422            | 102.28 | 1.49  | 3.02  | 10.92 | 3.01 | 36.29 |
|                      | 44-46            | 45                  | 1397            | 81.11  | 0.62  | 1.47  | 9.33  | 3.04 | 27.03 |
|                      | 46-48            | 47                  | 1372            | 95.33  | 1.09  | 2.89  | 10.03 | 2.13 | 32.17 |
|                      | 48-50            | 49                  | 1347            | 101.68 | 1.08  | 3.14  | 10.34 | 2.67 | 34.31 |
|                      | 0-2              | 1                   | -               | 157.16 | 0.60  | 1.55  | 11.29 | 2.03 | 17.27 |
|                      | 2-4              | 3                   | -               | 158.79 | 0.55  | 1.14  | 11.51 | 1.74 | 17.72 |
|                      | 4-6              | 5                   | -               | 97.84  | 0.59  | 2.12  | 11.42 | 1.94 | 17.83 |
|                      | 6-8              | 7                   | -               | 136.07 | 0.60  | 2.51  | 11.69 | 1.96 | 20.35 |
|                      | 8-10             | 9                   | -               | 167.21 | 0.65  | 2.75  | 11.59 | 2.13 | 22.52 |
|                      | 10-12            | 11                  | -               | 158.07 | 0.64  | 2.70  | 11.63 | 2.38 | 21.42 |
|                      | 12-14            | 13                  | -               | 160.97 | 0.65  | 2.41  | 11.41 | 2.09 | 20.20 |
|                      | 14-16            | 15                  | -               | 158.64 | 0.62  | 2.17  | 11.34 | 2.12 | 18.41 |
| C42A                 | 16-18            | 17                  | -               | 152.24 | 0.63  | 2.08  | 11.06 | 1.91 | 17.52 |
|                      | 18-20            | 19                  | -               | 150.30 | 0.60  | 2.12  | 10.99 | 2.29 | 19.54 |
| C42A                 | 20-22            | 21                  | -               | 152.81 | 0.63  | 2.20  | 10.94 | 1.99 | 19.00 |
|                      | 22-24            | 23                  | -               | 159.54 | 0.54  | 2.44  | 11.21 | 2.03 | 16.60 |
| C42A                 | Superficial      |                     | -               | 77.96  | 2.37  | 0.33  | 11.91 | 6.35 | 11.56 |

**Supplementary Table 4.** Carbonate free basis (CFB) concentration values (mg/kg) in the solid phase from cores C37A, C42A and C52A collected during PALEOMAR-I expedition to the Gulf of California. Corresponding age is presented for each horizon only for core C37A.

| Core                 | Depth range (cm) | Depth midpoint (cm) | Age in years AD | Ba <sub>CFB</sub> | Cd <sub>CFB</sub> | Mo <sub>CFB</sub> | Ni <sub>CFB</sub> | U <sub>CFB</sub> | V <sub>CFB</sub> |
|----------------------|------------------|---------------------|-----------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|
| C37A (Alfonso Basin) | 0-2              | 1                   | 1999            | 362.65            | 2.21              | 5.66              | 35.92             | 8.79             | 111.25           |
|                      | 2-4              | 3                   | 1967            | 386.55            | 2.41              | 5.91              | 38.65             | 9.31             | 106.78           |
|                      | 4-6              | 5                   | 1934            | 415.62            | 3.21              | 8.79              | 38.98             | 9.20             | 126.06           |
|                      | 6-8              | 7                   | 1902            | 421.20            | 3.12              | 9.41              | 40.98             | 9.35             | 127.14           |
|                      | 8-10             | 9                   | 1870            | 439.83            | 3.54              | 9.92              | 44.01             | 11.31            | 139.53           |
|                      | 10-12            | 11                  | 1837            | 382.03            | 3.37              | 8.03              | 40.22             | 11.51            | 133.66           |
|                      | 12-14            | 13                  | 1805            | 435.86            | 3.76              | 8.66              | 43.80             | 12.31            | 143.38           |
|                      | 14-16            | 15                  | 1772            | 449.50            | 3.58              | 8.62              | 45.26             | 11.64            | 133.02           |
|                      | 16-18            | 17                  | 1747            | 397.00            | 3.65              | 8.76              | 39.32             | 8.81             | 111.66           |
|                      | 18-20            | 19                  | 1722            | 415.90            | 3.58              | 7.88              | 41.60             | 10.53            | 135.91           |
|                      | 22-24            | 23                  | 1672            | 439.17            | 4.37              | 11.65             | 45.25             | 9.95             | 152.71           |
|                      | 24-26            | 25                  | 1647            | 409.02            | 4.14              | 9.96              | 41.36             | 11.51            | 140.07           |
|                      | 26-28            | 27                  | 1622            | 413.10            | 4.26              | 7.40              | 45.35             | 11.20            | 139.37           |
|                      | 28-30            | 29                  | 1597            | 423.03            | 4.98              | 12.33             | 43.04             | 9.93             | 146.66           |
|                      | 30-32            | 31                  | 1572            | 436.60            | 4.51              | 11.69             | 41.69             | 10.07            | 147.64           |
|                      | 32-34            | 33                  | 1547            | 417.88            | 4.31              | 10.04             | 42.61             | 10.57            | 143.36           |
|                      | 34-36            | 35                  | 1522            | 446.46            | 4.87              | 11.82             | 47.14             | 10.90            | 157.48           |
|                      | 36-38            | 37                  | 1497            | 429.42            | 3.97              | 9.76              | 44.65             | 10.15            | 152.97           |
|                      | 38-40            | 39                  | 1472            | 402.72            | 3.40              | 8.48              | 42.00             | 10.28            | 133.43           |
|                      | 40-42            | 41                  | 1447            | 444.02            | 4.38              | 12.64             | 45.92             | 9.46             | 151.22           |
|                      | 42-44            | 43                  | 1422            | 433.39            | 6.33              | 12.78             | 46.26             | 12.74            | 153.76           |
|                      | 44-46            | 45                  | 1397            | 312.58            | 2.40              | 5.68              | 35.94             | 11.73            | 104.16           |
|                      | 46-48            | 47                  | 1372            | 404.73            | 4.64              | 12.25             | 42.57             | 9.06             | 136.60           |
|                      | 48-50            | 49                  | 1347            | 434.84            | 4.62              | 13.41             | 44.23             | 11.42            | 146.75           |
| C52A (La Paz Basin)  | 0-2              | 1                   | -               | 559.55            | 2.13              | 5.53              | 40.20             | 7.24             | 61.50            |
|                      | 2-4              | 3                   | -               | 558.52            | 1.95              | 4.01              | 40.48             | 6.12             | 62.32            |
|                      | 4-6              | 5                   | -               | 348.17            | 2.09              | 7.55              | 40.65             | 6.92             | 63.43            |
|                      | 6-8              | 7                   | -               | 485.87            | 2.13              | 8.96              | 41.76             | 7.01             | 72.67            |
|                      | 8-10             | 9                   | -               | 640.95            | 2.49              | 10.54             | 44.42             | 8.16             | 86.33            |
|                      | 10-12            | 11                  | -               | 562.77            | 2.29              | 9.62              | 41.42             | 8.47             | 76.26            |
|                      | 12-14            | 13                  | -               | 558.21            | 2.25              | 8.37              | 39.57             | 7.26             | 70.04            |
|                      | 14-16            | 15                  | -               | 585.57            | 2.28              | 8.02              | 41.85             | 7.82             | 67.94            |
|                      | 16-18            | 17                  | -               | 570.95            | 2.35              | 7.80              | 41.48             | 7.18             | 65.72            |
|                      | 18-20            | 19                  | -               | 592.74            | 2.38              | 8.36              | 43.35             | 9.02             | 77.06            |
|                      | 20-22            | 21                  | -               | 527.38            | 2.16              | 7.59              | 37.75             | 6.85             | 65.57            |
|                      | 22-24            | 23                  | -               | 573.38            | 1.95              | 8.79              | 40.29             | 7.31             | 59.67            |
| C42A                 | Superficial      |                     | -               | 78.94             | 2.40              | 0.34              | 12.06             | 6.43             | 11.70            |