A Big Earth Data Platform for Three Poles

**Piezoelectric ceramic sensor data**

1、Description

An embedded cement-based piezoelectric ceramic sensor is studied and designed, which is embedded in the anti slide pile for four point bending test. The feasibility and accuracy of cement-based piezoelectric ceramic sensor are verified by using acoustic emission equipment and comparing with traditional commercial acoustic emission sensors. In this experiment, four piezoelectric ceramic sensors were prepared, and a traditional commercial acoustic emission sensor was arranged near the piezoelectric ceramic sensor. The data collected by the two sensors were compared. There are four groups of data, and each group of data includes the data of a piezoelectric ceramic sensor and a commercial acoustic emission sensor in a similar position. The test shows that the embedded cement-based piezoelectric ceramic sensor has high sensitivity and can work under quasi-static load. It is of great significance for the monitoring of internal fracture of mass concrete structure.

2、Keywords

Theme：AE data,Others,piezoelectric ceramics,Acoustic emission
Discipline：Terrestrial Surface,Others
Places：Wuhan
Time：2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：15.1MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：31.22 | - |
| west：113.41 | - | east：115.05 |
| - | south：29.58 | - |

5、Time frame:None--None

6、Reference method

References to data:

JIANG Qinghui . Piezoelectric ceramic sensor data. A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2721952022

References to articles:

7、Supporting project information

8、Data resource provider

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