很好，充分说明了QR-AMCBFM在处理离散体散射问题时的有效性。该算例说明了传统的CBFM在处理大型阵列天线阵时通过对称性和设置CBF距离门限来提高计算速度，但是对于非周期性的阵列或者离散体群的电磁问题，这些技术将会失效。而QR-AMCBFM在处理大型的阵列问题时不必局限于其周期性，而且通过QR分解互阻抗块矩阵后，可以根据块矩阵秩的大小或者与距离结合共同设置门限，而不是人为设置块间距离为门限。

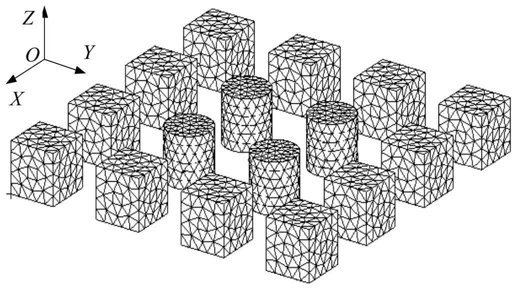

图3 4×4不同单元构成的离散体群的示意图

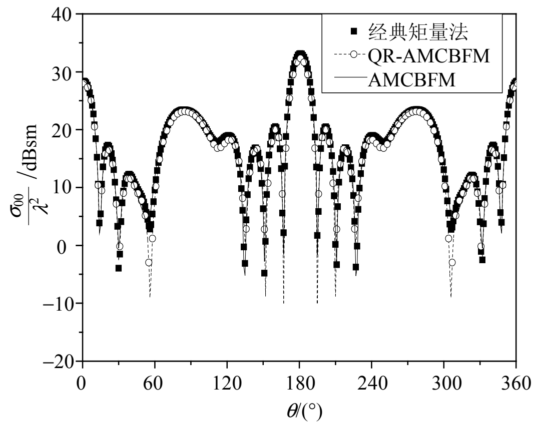

图4 在平面波照射下离散体群的双站RCS

4 结 论

在AMCBFM中应用基于dual-MGS的QR分解技术后，剔除了部分近场块间互阻抗矩阵中线性相关性强的向量，通过设置门限值决定互阻抗矩阵的数值秩的大小，并与距离一起判断是否进一步计算远场块对源块的作用。从数值结果上看，新技术QR-AMCBFM较之经典MM和CBFM能明显的提高计算速度，比经典MM还能大幅降低存储空间，特别是对于处理不具有周期性结构的离散体群的电磁特性问题，具有一定的优势。

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