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**Magnetic bubbles spontaneously formed in a van der Waals ferromagnet
Fe₃GeTe₂**

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Perpendicular magnetic anisotropy in uniaxial ferromagnets leads to the formation of stripe-like domain patterns. However, the application of a small magnetic field along the easy axis direction can induce magnetic bubbles in these materials. Here, we observe the emergence of magnetic bubbles in a uniaxial ferromagnet Fe₃GeTe₂ single crystal at zero magnetic field. The magnetic imaging is done by X-ray magnetic circular dichroism photoemission electron microscopy (XMCD-PEEM) on an in-situ cleaved Fe₃GeTe₂ single crystal. The magnetic domains in our Fe₃GeTe₂ crystal with a transition temperature of about 175 K consist of stripes and bubbles. The stripe structures are temperature-independent while the bubbles shrink at lower temperatures. Moreover, the domains are uniform over the sample surface, where the continuity of the magnetic domain pattern over the surface features suggests that the bulk and the surface magnetic textures are similar. The key feature of the magnetic pattern is the presence of bubbles inside the conventional stripe-like domains. The size of the observed bubbles varies, but the maximum size is generally governed by the stripe width, being roughly one third of it.