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The corrosion inhibition efficiency of aluminum triphosphate on carbon steel in carbonated concrete pore solution

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Highlights

- The stability of passive films on the carbon steel increased with the concentration of ATP in the carbonated pore solution.
- 2 The content of Fe⁰ and Fe²⁺ ions in passive film decrease whereas the Fe³⁺ ion content increases with increasing concentration of ATP.
- 3 The content of P 2p_{3/2} increases with the concentration of ATP, while no spectra of Al 2p was detected at the surface of samples.
- 4 The resistance of concrete cover layer increased with the content of ATP in

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