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Transient electro-magneto-hydrodynamic two-phase blood flow and thermal transport through a capillary vessel

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Highlights

- Using electromagnetic field, mathematical modeling is obtained for transient two-phase flow and thermal transport through a capillary vessel.
- The motion of blood and particles are controlled by regulating the electrokinetic and magnetic parameter.
- The thermal transport of blood and particles are controlled by adjusting Joule heating parameter and Eckert number.
- For a case of sinusoidal pressure gradient, the blood has a pulsating motion and the reverse flow is occurring for certain values of the K parameter and of the time t .

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