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The Energy flow of a Linear Dipole in a Dielectric Medium GEORGE HINERMAN, XIN LI, HENK ARNOLDUS, None — The energy flow lines of radiation emitted by a linear dipole in free space are radially straight. This is observed by analyzing the field lines of the Poynting vector. When a linear dipole is placed in an energy absorbing medium, such as water, the field lines begin to exhibit a partial curvature. Our research shows that due to the damping in a dielectric medium, the direction of the energy flow lines are altered in the near field. The curved field lines in the near field; however, do not contribute to energy flow in the far field. Energy flow patterns of linear dipole radiation in different mediums will be discussed.

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None

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