end **494** may be selected to provide different magnitudes and/or directions of the electrostatic force exerted on the reflective element **107** so as to provide for different amounts of deformation of the reflective element **107**.

[0104] The third electrode **103** may be configured differently than shown in FIGS. **8**A-**11**B. For example, in different MEMS architectures, the third electrode **103** may comprise one, two, three, four, or more electrically conductive portions of the MEMS device including, for example, portions of the support posts, the mechanical layer, the mirror, or other portions of the device. In some embodiments, the electrostatic force used to facilitate the release of the reflective element **107** from the portion **113** may be provided by electrodes **101**, **102**, and **103** as well as by other electrodes. In one embodiment, for example, the third electrode **103** comprises a plurality of electrodes, each disposed near each side of the reflective element **107**. By suitably applying voltages to these electrodes, the reflective element **107** can be induced to oscillate or vibrate in multiple directions: a first direction that is perpendicular to the portion **113** (indicated by the arrow **380** in FIG. **10**B) as well as second and third directions that are substantially parallel to the portion **113** (e.g., a second direction indicated by the arrow **384** in FIG. **10**B and a third mutually perpendicular direction that is into or out of the plane of FIG. **10**B).

[0105] FIGS. **12**A-**12**D are side cross-sectional views of various configurations of the reflective element **107** in accordance with various embodiments described herein. In certain embodiments, the reflective element **107** comprises more than one layer. The reflective element **107** shown in FIG. **12**A comprises a second layer **514** disposed over a first layer **510**. The layers may comprise different materials and may have different mechanical and electrical properties. In some embodiments, the first layer **510** is configured to be a highly reflective portion of an interferometric cavity, and the second layer **514** is configured to provide structural rigidity to the reflective element **107**. In these embodiments, the first layer **510** comprises a highly reflective metal such as aluminum, and the second layer **514** comprises a dielectric material and/or a rigid material, such as an aluminum alloy or nickel that may be deposited on at least a portion of the first layer **510**. In certain embodiments, at least a portion of one or more of the layers may be electrically conductive. In certain such embodiments, one or more of the electrodes **101**, **102**, and **103** may comprise at least a portion of the electrically conductive portions of the layers. In some embodiments, the first layer **510** may be configured to have a different thickness than the second layer **514**. For example, as schematically shown in FIG. **12**A, the first layer **510** is thinner than the second layer **514**. At least a portion of the first layer **510** may be configured to be elastically flexible. For example, end portions **590** of the first layer **510** of the reflective element **107** in FIG. **12**A may be configured to have increased elastic flexibility as compared to the second layer **514**. The flexibility of the first layer **510** is advantageous in embodiments such as, for example, the MEMS device **400** shown in FIGS. **11**A and **11**B, wherein the electrostatic force causes an elastic deformation of the end portions **590** of the reflective layer **107**. In the embodiment shown in FIG. **12**A, the thickness of the end portions **590** of the first layer **510** is approximately equal to the thickness of the second layer **514**. In other embodiments, different layer thicknesses may be used. In certain embodiments, the first layer **510** is thinner than the second layer **514**. In other embodiments, at least the end portions **590** of the first layer **510** are thinner than the second layer **514**. For example, in certain such embodiments the thickness of the end portions **590** is in a range from about ⅓ to about ½ the thickness of the central portions of the reflective element **107**.

[0106] In some embodiments, the thickness of the reflective element **107** is nonuniform. FIG. **12**B is a side cross-sectional view of a reflective element **107** in which the end portions **590** are configured to be thinner than a central portion **591**. As described above, the thinner end portions **590** may facilitate the elastic deformation of the reflective element **107**. In some embodiments, the tapering of the reflective element **107** from the center portion **591** to the end portions **590** may be selected to provide a suitable mechanical resonant frequency that can be excited by the voltages applied to the electrodes **101**, **102**, and **103**. In certain embodiments, the thickness of the end portions **590** is in a range from about ⅓ to about ½ the thickness of the central portions of the reflective element **107**; however, other thicknesses and other taperings can be used.

[0107] FIG. **12**C is a side cross-sectional view of a reflective element **107** in which one or more extensions **592** are disposed on the reflective element **107**. As shown in FIG. **12**C, the extensions **592** are disposed on or near the end portions **590** of the reflective element **107**, but in other embodiments, the extensions **592** may be disposed at other locations. In some embodiments, the extensions **592** are electrically conductive and may provide an increased electrostatic attraction to other portions of the MEMS device when a voltage difference is applied between the extensions **592** and the other portions (e.g., first or second electrodes **101**, **102**) of the MEMS device. In some embodiments, the height of the extensions **592** above an upper surface of the reflective element **107** is in a range from about ⅓ to about ½ of the thickness of the central portions of the reflective element **107**, although other heights may be used.

[0108] FIG. **12**D is a side cross-sectional view of a reflective element **107** that comprises two layers **510** and **514** and the extensions **592**. In this embodiment, the extensions **592** are disposed on the first layer **510**, but they may be disposed on the second layer **514** in other embodiments. The thicknesses of the layers **510** and **514** and the heights of the extensions **592** can be selected to provide suitable electrical and/or structural properties that assist in at least partially reducing the adhesive force.

[0109] The configurations and orientations shown in FIGS. **12**A-**12**D are not intended to be limitations. Other embodiments of the reflective element **107** may combine one or more of the features shown in FIGS. **12**A-**12**D or may be configured differently. Many variations are possible.

[0110] The details of the structure of interferometric modulators that operate in accordance with the principles set forth herein may vary widely. For example, FIGS. **13**A-**13**C illustrate three different embodiments of a MEMS device in the relaxed state. FIG. **13**A shows a MEMS device **600***a* that is fabricated on a substrate layer **620** and that comprises an optical layer **624**, a dielectric layer **628**, and a mechanical layer **632**. The substrate layer **620**, the optical layer **624**, and the dielectric layer **628** have generally the same characteristics and features as the respective layers **120**, **124**, and **128** in the MEMS device **100** described with reference to FIGS. **8**A and **8**B. The mechanical layer **632** comprises one or more support posts **636***a* and **636***b* and has generally the same