

be deposited in the desired pattern at operation **302** in a manner commonly referred to as a printing process that is well known by those of ordinary skill in the art. Furthermore, the deposited material may include diverse materials in accordance with the present embodiment. For example, the material may include, but is not limited to, a conductive material, a non-conductive material, an opaque material, a non-reflective material, an insulating material, a substantially transparent material and/or the like. The material at operation **302** may include one or more of the materials mentioned herein, but is not limited to such. Once operation **302** is completed, the process exits flowchart **300**.

[0038] **FIG. 4** is a flowchart **400** of an exemplary photolithography/etching process in accordance with an embodiment of the present invention. Although specific operations are disclosed in flowchart **400**, such operations are exemplary. That is, the present embodiment is well suited to performing various other operations or variations of the operations recited in **FIG. 4**.

[0039] At operation **402**, a layer of material is deposited above a substrate. Operation **402** is performed as needed, and need not be performed if the material to be etched at operation **410** is already present prior to patterning. The deposition of the material at operation **402** may be implemented in a wide variety of ways. For example, the deposition of the material at operation **402** can be implemented in any manner described herein, but is not limited to such. The layer of material at operation **402** may include a wide variety of materials. For example, the material can include, but is not limited to, any material described herein.

[0040] At operation **404** of **FIG. 4**, a photoresist is deposited above the layer of material. At operation **406**, the photoresist is exposed to a particular pattern. At operation **408**, the photoresist is developed. At operation **410**, the material is etched in a manner to follow the pattern. At operation **412**, the remaining photoresist is stripped, away. It is noted that operations **404**, **406**, **408**, **410** and **412** may each be implemented in a wide variety of ways that are well known by those of ordinary skill in the art.

[0041] **FIG. 5** is a flowchart **500** of an exemplary liftoff process in accordance with an embodiment of the present invention. Although specific operations are disclosed in flowchart **500**, such operations are exemplary. That is, the present embodiment is well suited to performing various other operations or variations of the operations recited in **FIG. 5**.

[0042] At operation **502**, a layer of photoresist is deposited above a substrate. The deposition of the photoresist at operation **502** may be implemented in a wide variety of ways. For example, the deposition of the photoresist at operation **502** can be implemented in any manner described herein, but is not limited to such.

[0043] At operation **504** of **FIG. 5**, the photoresist is exposed to a particular pattern.

[0044] At operation **506**, the photoresist is developed. At operation **508**, a layer of material is deposited atop the photoresist. At operation **510**, the photoresist is dissolved and lifted off. At operation **512**, a cleaning process is then performed. It is noted that operations **504**, **506**, **508**, **510** and **512** may each be implemented in a wide variety of ways that are well known by those of ordinary skill the art.

[0045] **FIG. 6** is a flowchart **600** of operations performed in accordance with an embodiment of the present invention for manufacturing a capacitive sensing device. Although specific operations are disclosed in flowchart **600**, such operations are exemplary. That is, the present embodiment is well suited to performing various other operations or variations of the operations recited in **FIG. 6**. For example, it is appreciated that the patterning operations of flowchart **600** can be performed in diverse ways. For example, if the material to be patterned is not deposited in a separate operation, the patterning of the first metal layer can include, but is not limited to, process **300**, **400**, or **500**.

[0046] The present embodiment provides a method for manufacturing a capacitive sensing device. The capacitive sensing device includes a substantially transparent substrate having two metal layers which are separated by a substantially transparent insulating layer. Additionally, a second substantially transparent insulating layer can be optionally used in order to provide an abrasion resistance layer for the second metal layer and also provide them electrical insulation from the outside world. Each metal layer can be patterned to provide conductive traces that can be coupled to sensory circuitry (not shown) of a capacitive sensing device. Within the present embodiment, it is noted that there is typically no need for forming vias that couple one metal layer to the other. However, the first and second substantially transparent insulating layers are each patterned so that electrical contacts can be made to each of the metal layers.

[0047] At operation **602** of **FIG. 6**, a substantially transparent substrate (e.g., a glass, a plastic or a crystalline material) is cleaned. It is understood that there are a wide variety of ways at operation **602** for cleaning the substantially transparent substrate. For example, if the substantially transparent substrate is a glass, it can be aggressively cleaned at operation **602** with, but not limited to, ultrasonic nozzles, detergents, scrubbing brushes, thorough rinse and deionized water rinses. However, the cleaning of the substantially transparent substrate is not limited to such implementations.

[0048] At operation **604**, a first metal layer is deposited above the substantially transparent substrate. It is understood that the deposition of the first metal layer can be implemented in a wide variety of ways. For example, the deposition of the first metal layer can be implemented utilizing, but not limited to, a sputtering process, an electron beam evaporation process or a resistive evaporation process. It is noted that the first metal layer can include diverse materials. For instance, the first metal layer can include, but is not limited to, black chrome (e.g., chromium oxynitride), aluminum, titanium, nickel, chromium, and the like. Optionally, other materials and/or a plurality of layers may be incorporated as part of the first metal layer for processing or other reasons. For example, a titanium layer may be included as part of the first metal layer to be utilized as an etch stop when patterning a substantially transparent insulating layer, described below. Additionally, gold may be utilized when a liftoff process (e.g., flowchart **500**) is used. Moreover, gold may be utilized as part of the formation of a landing pad for sensing circuitry. Furthermore, a metal may be disposed between two other metals in the first metal layer to prevent corrosion. Alternatively, the first metal layer can include at least one layer of substantially opaque material. Moreover, the first metal layer can be formed of at least