ASX Announcement
14 September 2026

3rd US Patent Extending Protection to Non-Metallic Surfaces

Highlights

- **US Patent Application No. 18/574,061 titled *Method for Coating a Non-Metallic Surface with Graphene* has been allowed by the United States Patent and Trademark Office**
- **The patent extends Adisyn's protected technology beyond metallic surfaces to non-metallic surfaces such as dielectrics, complementing the Company's earlier patents covering metal-based coatings and interconnect products**
- **Allowed claims cover a low-temperature deposition process (below 400°C) with built-in quality verification via Raman Scattering, Contact Angle Measurement and Fluorescence Detection**
- **Claims extend to interconnect structures in which graphene functions as a diffusion barrier between the conducting wire and the surrounding dielectric layer, including along sidewalls**

Adisyn Ltd (ASX: AI1) ("Adisyn" or "the Company") is pleased to announce that the United States Patent and Trademark Office (USPTO) has allowed US Patent Application No. 18/574,061, titled *Method for Coating a Non-Metallic Surface with Graphene*.

Where Adisyn's earlier allowed patents protect the deposition of graphene onto metallic surfaces and the resulting metal-based interconnect products[1], this patent protects a method for depositing graphene directly onto non-metallic surfaces.

The allowed claims cover a method involving a graphene molecular precursor capable of forming a covalent bond directly with the non-metallic surface, enabling the graphene layer to be deposited and chemically bound without damaging the underlying material.

The allowed method maintains the non-metallic surface at a temperature below 400°C throughout the process, consistent with Adisyn's broader platform of low-temperature graphene deposition suitable for semiconductor manufacturing environments.

The claims also cover in-process quality verification, with the method incorporating at least one of: detection of Raman Scattering to confirm the presence of a complete graphene layer, Contact Angle Measurement, or Fluorescence Detection, providing a pathway to real-time process control during manufacture.

Strategic Significance

Existing technology on traditional semiconductor interconnects consists of a series of layers to not only send electrical signals but also isolate and protect these signals from interference.

To achieve this, a typical interconnect will consist of:

- **Copper wiring**: to transmit electric currents

[1] See ASX Announcements dated: 7 May 2026 & 31 July 2026

- **A barrier layer**: typically made of a tough metal compound like tantalum nitride, which stops copper atoms from migrating into the surrounding insulating material, causing contamination and degrading the chip's performance
- **A dielectric layer**: which acts as a bulk insulator, blocking interference between the electrical currents. This dielectric layer physically surrounds the copper and barrier layer and is primarily made of non-metallic materials.

Through the granting of this patent, Adisyn is able to protect its intellectual property which allows the Company to layer graphene upon this non-metallic dielectric surface, creating a graphene-based barrier layer.

Combined with the Company's earlier patent applications, this patent gives Adisyn intellectual property coverage across both sides of the barrier interface.

Additionally, graphene-based barrier layers may have advantages for the miniaturisation of semiconductors.

As cutting-edge chip architectures shrink below 5 nanometers (nm), the physical spacing for wires is reduced to very fine levels. However, the barrier and dielectric layers cannot be scaled down indefinitely and must remain robust enough to maintain chip integrity. Meaning, as the chip gets smaller the proportion of material devoted to electrical containment and insulation, known as the "barrier tax".

Replacing traditional barriers with graphene improves the potential for more transistors on chip, given Adisyn has demonstrated it is capable of layering graphene at approximately 1nm thickness[2].

The protection of this claim in tandem with Adisyn's existing patents ensures the Company has multiple angles to apply its low-temperature graphene deposition technology to produce highly advanced semiconductor chips.

Commenting on the granting of the patent, Executive Chairman Kevin Crofton said:

"Our earlier patents protect graphene's role on the metal side of an interconnect and the granting of our third patent now protects our intellectual property on the barrier interface.

"This patent happens to be built on one of our earliest priority filings, which speaks to the depth of thinking that has gone into this platform from the outset.

"Combined with our other two allowed US patents, we now have a strong, complementary intellectual property position as we continue to advance commercialisation of this breakthrough technology."

[2] See ASX Announcements dated: 20 April 2026, 9 June 2026 & 5 August 2026

This announcement has been approved for release by the Board of Adisyn Ltd.

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About Adisyn

Adisyn Ltd (ASX: AI1) is an Australian technology company developing advanced graphene materials for high-value applications in the semiconductor and advanced materials sectors.

The Company's core focus is the development of a patented low-temperature Atomic Layer Deposition (ALD) process designed to enable direct graphene growth on semiconductor wafers, addressing the performance limitations of copper interconnects in next-generation semiconductor devices.

Adisyn is also exploring additional commercial applications of its graphene expertise, including advanced composite materials designed to reduce radar signatures in UAV and defence platforms.

Adisyn's broader business includes Adisyn Services, which provides managed IT services, cloud, cybersecurity and artificial intelligence solutions to Australian small and medium-sized enterprises.

Forward-looking statements:

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices, or potential growth of Adisyn Ltd are, or may be, forward-looking statements. Such statements relate to future events and expectations and as such, involve known and unknown risks and uncertainties. These forward-looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties, and other factors, many of which are beyond the Company's control, and which may cause actual results to differ materially from those expressed in the statements contained in this release.

The Company cautions shareholders and prospective shareholders not to place undue reliance on forward-looking statements, which reflect the Company's expectations only as of the date of this announcement. The Company disclaims any obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.