## Supplement B

- Abstract to Title, Model: Small, Train 1M steps with 2016 data, Test with 2016 data
  - Similarity = 1.0 (rouge-1:P: 100.00, R: 100.00, F1: 100.00)
    - (predicted title) Touch liquid crystal grating, manufacturing method thereof and touch 3D display device
    - ♦ (actual title) Touch liquid crystal grating, manufacturing method thereof and touch 3D display device
    - ♦ (abstract) Embodiments of the present invention provide a touch liquid crystal grating, a manufacturing method thereof and a touch 3D display device, the touch liquid crystal grating comprising: a first substrate and a second substrate; a liquid crystal layer; first electrodes, disposed on a side of the first substrate facing the liquid crystal layer; an insulating layer, covering the first electrodes; second electrodes, disposed on a side of the insulating layer facing the liquid crystal layer, a spacing region being between adjacent two second electrodes; second touch electrodes, disposed in the same layer with the second electrodes, each being located in one spacing region; first touch electrodes, wherein when being powered on, the first and second touch electrodes function to realize a touch function; liquid crystal molecules under the second electrodes rotate, and liquid crystal molecules under the second touch electrodes do not rotate, forming the liquid crystal grating.
  - Similarity = 0.95323193 (rouge-1:P: 100.0, R: 46.15, F1: 63.16)
    - (predicted title) Organic light emitting display unit structure
    - ◆ (actual title) Organic light emitting display unit structure and organic light emitting display unit circuit
    - ♦ (abstract) An organic light emitting display unit structure including a first pixel, a second pixel adjacent to the first pixel, a first scan line electrically connected to the first pixel, a second scan line electrically connected to the second pixel, a data line, a power line, a sustaining signal line, a common reset signal line and a common light emitting signal line is provided. The power line and the sustaining signal line are respectively electrically connected to both of the first pixel and the second pixel. The data line intersects with the first scan line and the second scan line and is electrically connected to the first pixel and the second pixel. The common reset signal line and the common light emitting signal line are substantially disposed inside the first pixel and the second pixel respectively and are electrically connected to the first pixel and the second pixel.
  - Similarity = 0.9086025 (rouge-1: P: 58.33, R: 53.85, F1: 56.00)
    - (predicted title) Method and apparatus for performing power amplifier topology with low resistance capacitors
    - ◆ (actual title) Apparatus and methods for a cascode amplifier topology for millimeterwave power application
    - ♦ (abstract) Provided herein are apparatus and methods for a cascode amplifier topology for millimeter-wave power application. The cascode amplifier can use a neutralized common source stage cascoded with a bootstrapped common gate stage to provide an amplifier topology having enhanced performance, gain, stability and reliability. Additionally, a bootstrap capacitor of the common gate stage can be patterned between the source fingers and the drain fingers of a cascode transistor so as to improve device performance. Operating as an RF power amplifier, a single-stage cascode amplifier using the neutralized common source stage with the bootstrapped common gate stage can provide greater than 15 dB of power gain to signals of the E band.

- Similarity = 0.85672224 (rouge-1: P: 50.00, R: 71.43, F1: 58.82)
  - (predicted title) Polypeptides comprising complement factor B analogs and methods of use
  - (actual title) Complement factor B analogs and their uses
  - ♦ (abstract) The invention provides polypeptides comprising a complement factor B analog. The invention also provides various complement factor B analogs including complement factor B analogs comprising a mutation of a free cysteine amino acid and related methods, nucleic acids and vectors. These complement factor B analogs and related methods, nucleic acids and vectors can be used to modulate a complement pathway or for the study and/or treatment of various conditions or diseases related to a complement pathway.
- Similarity = 0.8080478 (rouge-1: P: 33.33, R: 28.57, F1: 30.77)
  - (predicted title) Semiconductor device with multiple delay cells
  - ♦ (actual title) Semiconductor device and semiconductor device operating method
  - ♦ (abstract) A semiconductor device includes an analog-digital converter circuit. The analog-digital converter circuit includes a delay cell array and an encoder. The delay cell array contains n number of serially-coupled delay cells, receives a reference clock signal, and utilizes an analog input signal as the power supply voltage for the delay cells in each stage. The encoder encodes an output signal from the delay cell in each stage for the delay cell array and outputs the encoded output signal as a digital output signal. The n number of delay cells includes delay quantities weighted for each delay cell. The encoder encodes the output signal of the delay cells in each stage for the delay cell array by weighting corresponding to the number of delay cell stage.
- Similarity = 0.75979394 (rouge-1: P: 66.67, R: 54.55, F1: 60.00)
  - (predicted title) Method and apparatus for determining carbon emissions of vehicles
  - (actual title) Methods, apparatuses and computer program products for measuring vehicle carbon footprint
  - ♦ (abstract) Systems, methods, apparatuses, and computer program products are provided for determining carbon emissions of one or more vehicles. For instance, in one example embodiment, an apparatus may calculate miles traveled by the vehicles along a predefined route and may calculate a fuel usage of the vehicles for traveling along the route to obtain one or more fuel values. The apparatus may also analyze data indicating the miles traveled and the fuel values to determine fuel efficiency values corresponding to the vehicles traveling the route. The apparatus may also determine an estimate of an amount of carbon emissions for each of the vehicles based in part on applying at least one carbon emission value to respective fuel values associated with corresponding determined fuel efficiency values.
- Similarity = 0.70342636 (rouge-1: P: 18.18, R: 16.67, F1: 17.39)
  - (predicted title) Radio access network having a wide area radio communication technology circuit
  - ◆ (actual title) Communication terminal device, communication device, communication network server and method for controlling
  - ♦ (abstract) In various aspects of this disclosure, a communication terminal device may be provided. The communication terminal device may include a cellular wide area radio communication technology circuit. The cellular wide area radio communication technology circuit may be configured to provide a communication according to a cellular wide area radio communication technology. The communication terminal device may further include a circuit. The circuit may be configured to provide a direct communication terminal device to communication terminal device communication

bypassing a radio access network according to information received via the radio access network. The communication terminal device may further include a message generator. The message generator may be configured to generate a message to transmit to a base station. The message may include at least one message field specifying information about at least one capability to provide the direct communication terminal device to communication terminal device communication of the communication terminal device. The message may be generated for a network communication protocol.

- Similarity = 0.65813816 (rouge-1:P: 12.50, R: 11.11, F1: 11.76)
  - (predicted title) Liquid crystal capacitor with thin-film transistor devices
  - (actual title) Display circuitry with improved transmittance and reduced coupling capacitance
  - ♦ (abstract) A display may have a color filter layer and a thin-film transistor layer. A layer of liquid crystal material may be located between the color filter layer and the thin-film transistor (TFT) layer. The TFT layer may include thin-film transistors formed on top of a glass substrate. A passivation layer may be formed on the thin-film transistor layers. A first low-k dielectric layer may be formed on the passivation layer. Data line routing structures may be formed on the first low-k dielectric layer. A second low-k dielectric layer may be formed on the first low-k dielectric layer. A common voltage electrode and associated storage capacitance may be formed on the second low-k dielectric layer. The first and second low-k dielectric layers may be formed from material having substantially similar refractive indices to maximize backlight transmittance and may have appropriate thicknesses so as to minimize parasitic capacitive loading.
- Similarity = 0.60621536 (rouge-1: P: 33.33, R: 25.00, F1: 28.57)
  - (predicted title) Mobile navigation for road condition data
  - (actual title) Apparatus and method for providing assistance data heatmaps
  - ◆ (abstract) Providing assistance data to a mobile device may include receiving from the mobile device one or more messages indicative of its condition. According to an implementation a heatmap is generated based, at least in part, on the condition of the mobile device. The heatmap includes a plurality of expected signature values of wireless signals mapped along a plurality of path segments corresponding to navigable spaces of a floor plan of a venue. The heatmap excludes expected signature values at locations in the venue other than the plurality of path segments. The heatmap is transmitted to the mobile device.
- Similarity = 0.55782396 (rouge-1: P: 0.00, R: 0.00, F1: 0.00)
  - (predicted title) Air temperature and humidity control device
  - (actual title) Integrated membrane dehumidification system
  - ♦ (abstract) An air temperature and humidity control device is provided including a first heat pump having a compressor, an expansion valve, a condenser, and an evaporator. The first heat pump has a refrigerant circulating there through. A humidity controller includes a first contactor fluidly coupled to the evaporator and condenser. The first contact includes at least one contact module having a porous sidewall that defines an internal space through which a hygroscopic material flows. A first air flow is in communication with the porous sidewall of the first contactor. The device also has a second heat pump including a first polishing coil. The first polishing coil is substantially aligned with and arranged generally downstream from the first contactor relative to the first air flow.
- Similarity = 0.508425 (rouge-1: P: 22.22, R: 33.33, F1: 26.67)
  - (predicted title) Phased Schottky device having a low bias depletion boundary

- (actual title) Schottky device and method of manufacture
- (abstract) A Schottky device includes a barrier height adjustment layer in a portion of a semiconductor material. In accordance with an embodiment, the Schottky device is formed from a semiconductor material of a first conductivity type which has a barrier height adjustment layer of a second conductivity type that extends from a first major surface of the semiconductor material into the semiconductor material a distance that is less than a zero bias depletion boundary. A Schottky contact is formed in contact with the doped layer.
- $\blacksquare$  Similarity = 0.45275643 (rouge-1: P: 0.00, R: 0.00, F1: 0.00)
  - (predicted title) Method for detaching a fixed-wing aircraft
  - (actual title) Convertible compounded rotorcraft
  - ♦ (abstract) A compound rotorcraft including a rotary wing aircraft having a fuselage and at least one rotor and a fixed-wing aircraft coupled to the rotary wing aircraft, wherein the rotary wing aircraft can fly on the rotor or the fixed-wing aircraft, and wherein the fixed-wing aircraft is detachable from the rotary wing aircraft to fly independently.
- Similarity = 0.40565053 (rouge-1: P: 25.00, R: 22.22, F1: 23.53)
  - (predicted title) Method for arranging a component and component arrangement
  - (actual title) Method for hardfacing the Z-notch of tial blades
  - ♦ (abstract) A method for arranging a coating, in particular a hardfacing, on a component, in particular a TiAl drive unit component, is disclosed. The coating comprises a metallic coating material. A green body is formed with the coating material, which is arranged in the presence of a solder on the component and is formed into a coating by a combined solder-sintering process and is fixed on the component.
- Similarity = 0.35319823 (rouge-1: P: 0.00, R: 0.00, F1: 0.00)
  - (predicted title) Grap prepared by castor oil
  - (actual title) Fulvestrant formulations
  - ♦ (abstract) The invention provides a fulvestrant composition comprising a pharmaceutically acceptable alcohol, polysorbate <br/>b>80</b>, an antioxidant, and castor oil, which is substantially or completely free of a non-aqueous ester solvent and which demonstrates excellent storage stability. The composition may be used to treat hormone receptor positive metastatic breast cancer in a subject.
- $\blacksquare$  Similarity = 0.30152243 (rouge-1: P: 0.00, R: 0.00, F1: 0.00)
  - ◆ (predicted title) System to treat and control the treatment of multiple types of information
  - (actual title) Native application testing
  - ♦ (abstract) In one embodiment, a method includes deploying an application to a plurality of client system, providing a treatment of the application to a set of client systems by receiving a request from the client system, determining whether the client system belongs in a treat group, remotely activating the treatment, and synchronizing activation of the treatment in response to subsequent requests, and receiving exposure data from the set of client system identifying exposure of the users to the treatment.
- Similarity = 0.25275576 (rouge-1: P: 5.56, R: 25.00, F1: 9.09)
  - (predicted title) Organic compounds of Formula (I) based on p-(p-xylyl)phenyl, and organic compounds prepared from the same
  - (actual title) Aminothiazoles and their uses
  - (abstract) The present application describes organic compounds of Formula (I)

- $\blacksquare$  Similarity = 0.19938941 (rouge-1: P: 0.00, R: 0.00, F1: 0.00)
  - (predicted title) Fractional water generation
  - ♦ (actual title) Gel volume mascara
  - ♦ (abstract) Inventive embodiments disclosed herein relate to gel volume mascara. The mascara includes water in a concentration of at least about 45% by weight; disodium ethylenediaminetetraacetate; Polysorbate 20; Black iron oxide; One or more waxes selected from the group consisting of beeswax, Cera Carnauba/<i>
    Copernicia Cerifera </i>
    </i>
    (Carnauba) Wax/CIRE de Carnauba, and paraffin in a concentration of 15-20% by weight; and a synthetic layered silicate, insoluble in water, in a concentration effective for forming a colloidal dispersion with the water.
- Similarity = 0.1468853 (rouge-1: P: 8.33, R: 50.00, F1: 14.29)
  - (predicted title) Tissue treating devices for treating an obesity via non-invasive drug delivery
  - ♦ (actual title) Intragastric device
  - (abstract) Devices and methods for treating obesity are provided. More particularly, intragastric devices and methods of fabricating, deploying, inflating, monitoring, and retrieving the same are provided.
- Similarity = 0.112650834 (rouge-1: P: 0.00, R: 0.00, F1: 0.00)
  - (predicted title) pistewalls
  - (actual title) Piston assembly transportation and installation apparatus and methods of transporting and installing a piston assembly therewith
  - ♦ (abstract) A piston assembly transportation and assembly apparatus and methods of transporting and installing a piston assembly therewith are provided. The apparatus maintains a piston assembly in its assembled state during transportation without allowing damage and contamination to the piston assembly. The apparatus also facilitates storage and installation of the piston assembly into a cylinder bore. The apparatus includes a housing having a bore bounded by an inner cylindrical surface extending from a first end of the housing toward a second end of the housing. A chamfered surface diverges radially outwardly from the first end to mate with an upper surface of a stuffing cone during assembly. The second end has a wall extending radially inwardly from the inner cylindrical surface to axially confront an upper crown of the piston assembly to both prevent the piston assembly from passing though the apparatus and to prevent contamination from entering the apparatus.