ARMINANO

Armina
Engineering Co.

Gold Nanoparticles
AUP311

Description and Applications:

Gold nanoparticles have attracted great interests in the fields of biological and medical applications such as diagnosis of heart diseases, cancers, and infectious agents. Because of the unique surface plasmon resonance property, the surface of gold nanoparticles can be used for selective oxidation or reduce a reaction in certain cases and also can strongly absorb light (as the result of the SPR) which can efficiently be converted to heat. This makes it a useful tool for photothermal therapy of cancers or other diseases. The large surface area-to-volume ratio of gold nanoparticles enables their surface to be coated with hundreds of molecules, including therapeutics that can be used for drug delivery purposes. Also, gold has good electrical and thermal conductivity. Gold's capability to resist corrosion as well as its high electrical conductivity make it useful for forming contacts in electronic devices.

Characterization	
CAS	7440-57-5
Stock No.	AUP311
Molecular formula	Au
Molecular weight (g/mol)	196.97
Form	Water base colloid
Color	Red
Concentration	0.1 mg/mL
Functional group	Citrate
Morphology	Spherical
Crystal structure	FCC
Size range (nm)	5-20
Total impurity (%)	N/A

Image of gold nanocolloid (AUP311)

Note: product specifications are subject to amendment and may change over time.

Safety:
Always use protective gloves and safety glasses.
Wash with soap and water after exposure.
Refer to MSDS prior to handling this material.

www.armina-eng.com
Sales@armina-eng.com

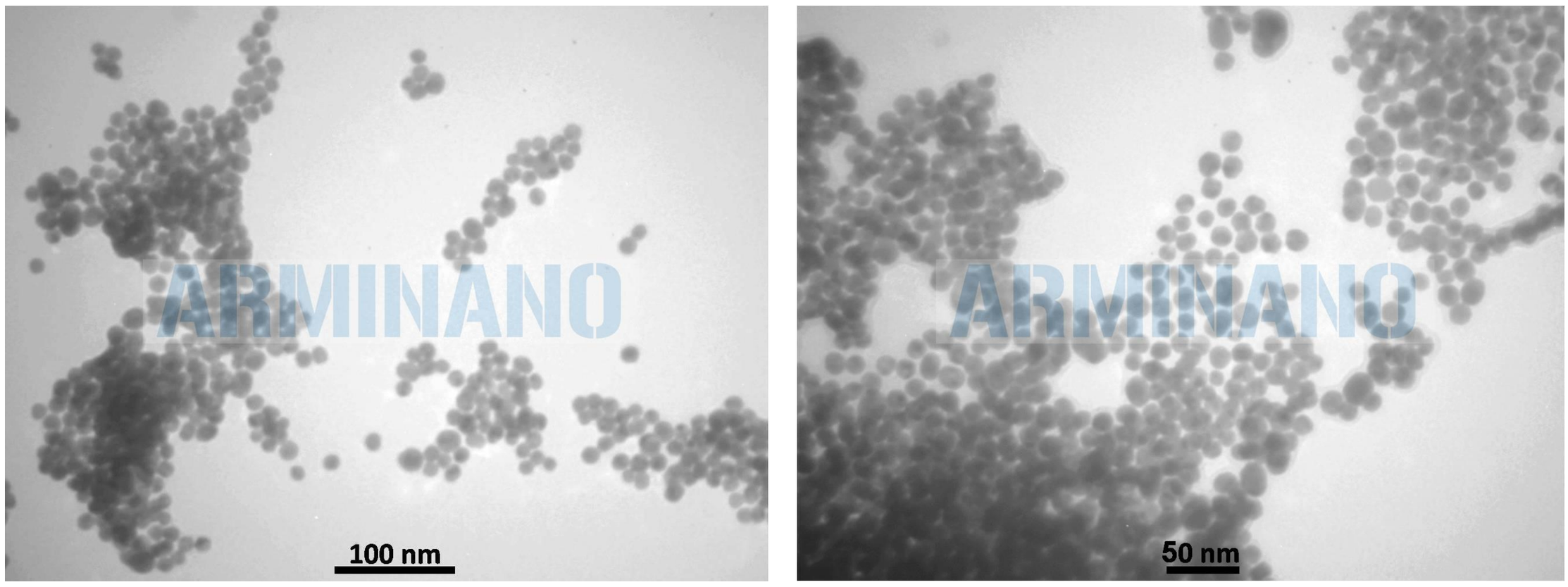
حرکت بسوی آینده پایدار
A mission for sustainable future

Address: Tehran-Damavand road, Pardis technology park, commercialization and techmart building, No. 1304
Postals Code: 16541 20708
Telefax: +98 21 7625 1689
(+98) 933 759 6565

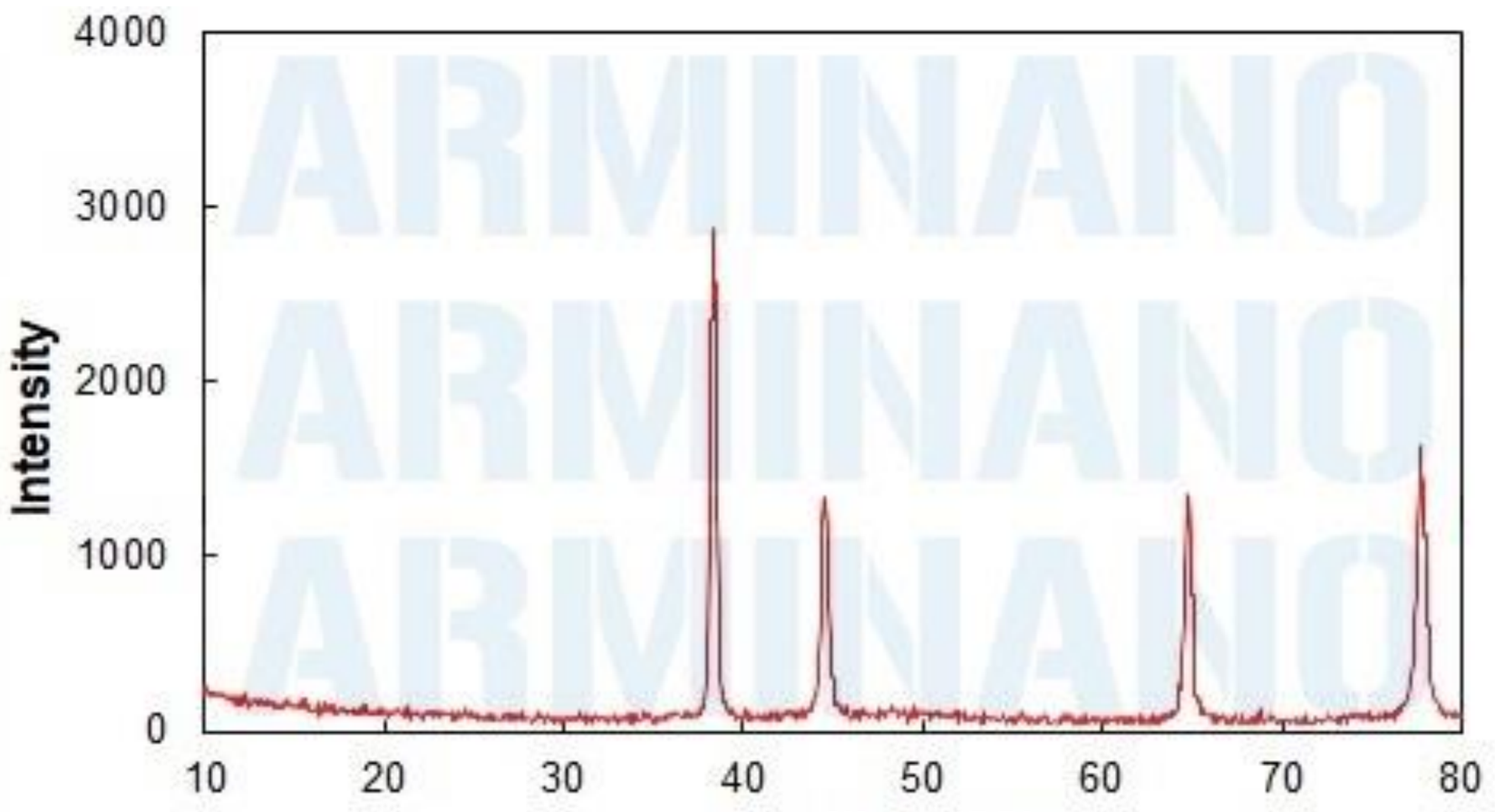
ARMINANO

Armina
Engineering Co.

Gold Nanoparticles
AUP311



TEM images of AUP311



XRD pattern of AUP311

www.armina-eng.com
Sales@armina-eng.com

A mission for sustainable future

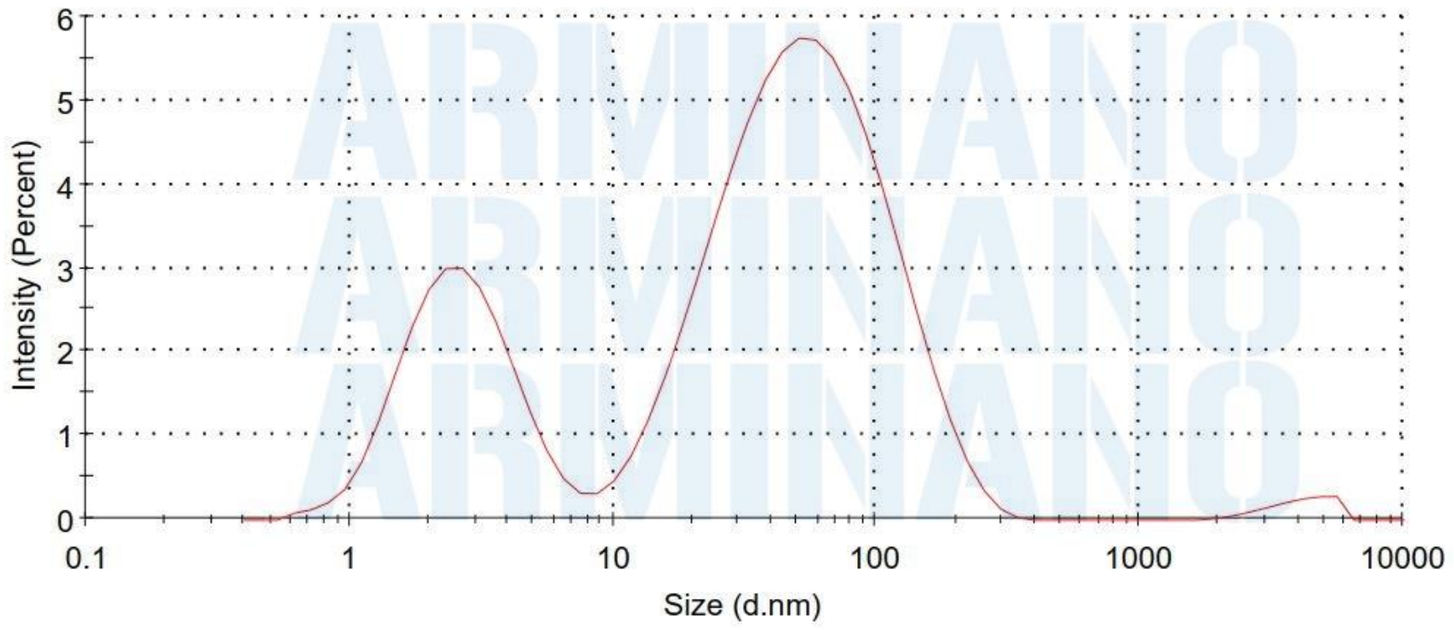
Address: Tehran-Damavand road, Pardis technology park, commercialization and techmart building, No. 1304
Postals Code: 16541 20708
Telefax: +98 21 7625 1689

(+98) 933 759 6565

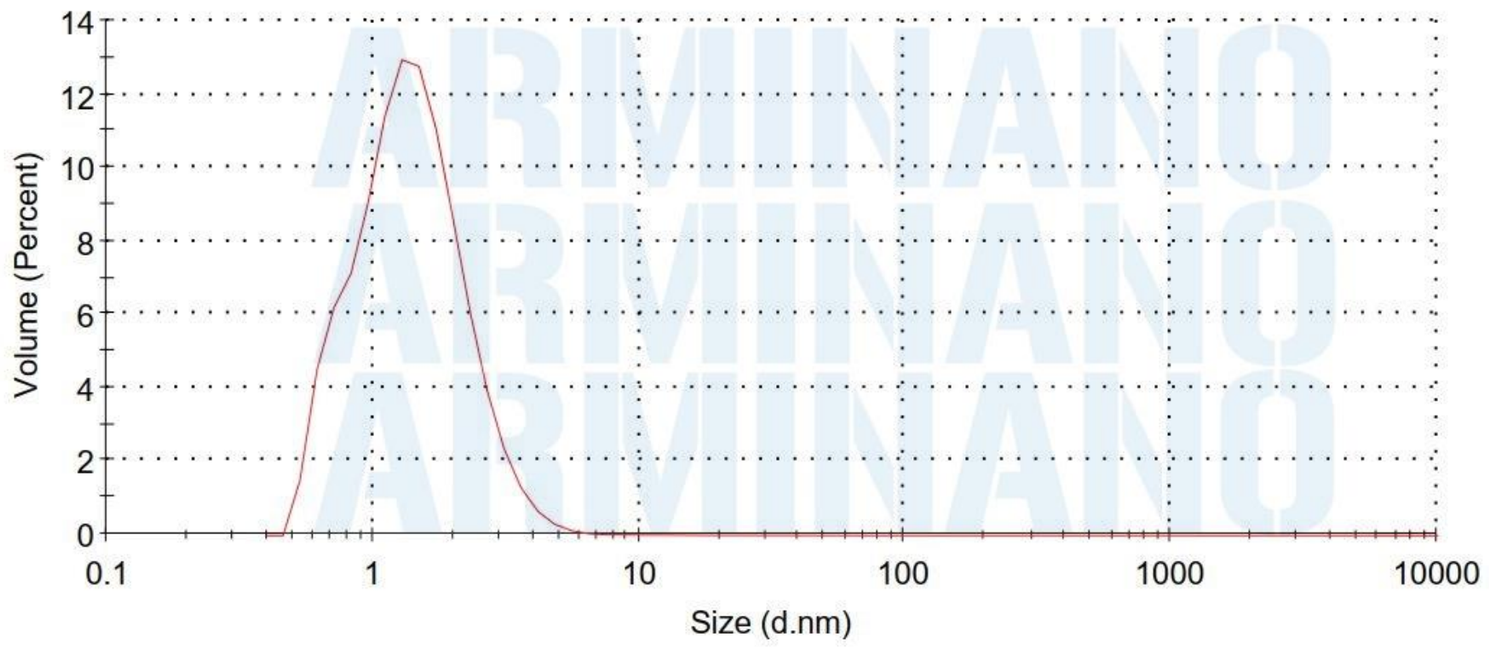
ARMINANO

Armina
Engineering Co.

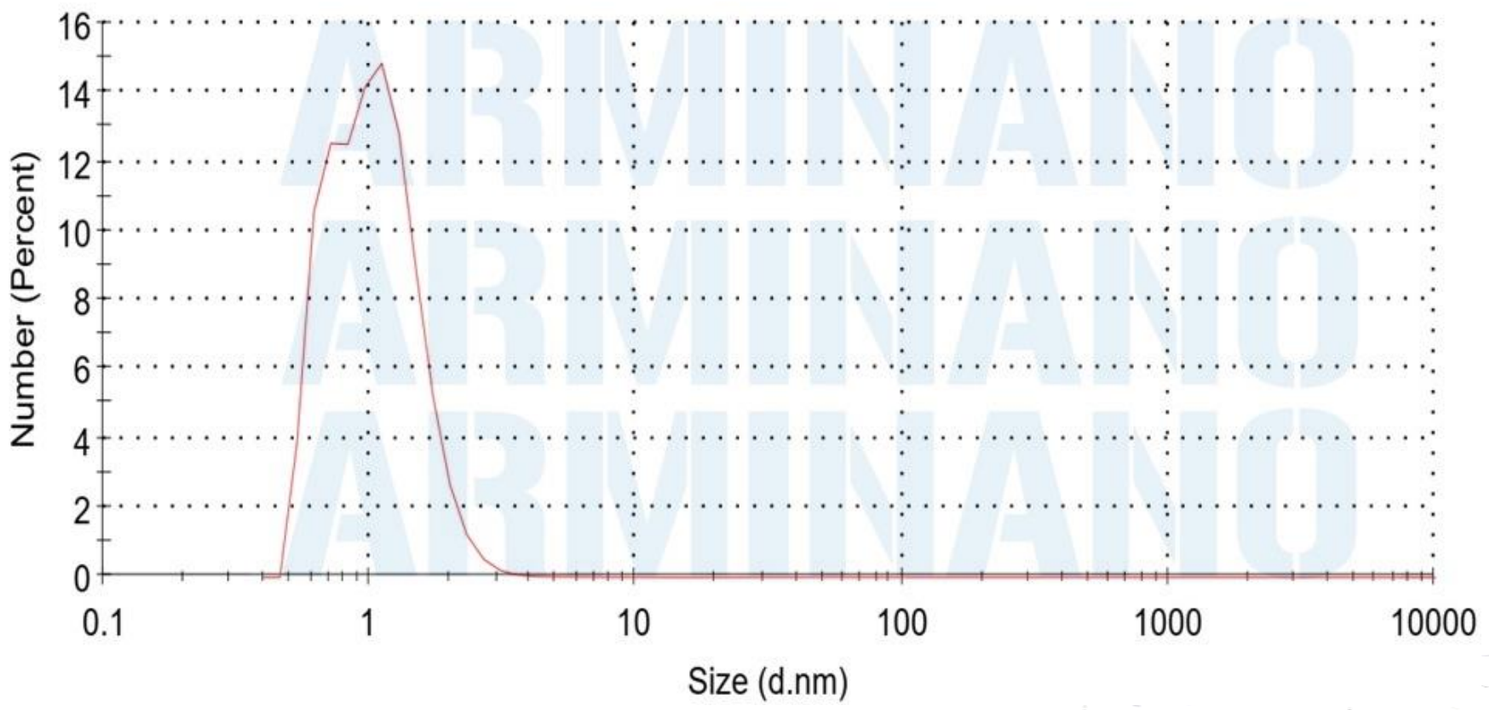
Gold Nanoparticles
AUP311



Size distribution by intensity of AUP311 (DLS)



Size distribution by volume of AUP311 (DLS)



Size distribution by number of AUP311 (DLS)

www.armina-eng.com
Sales@armina-eng.com

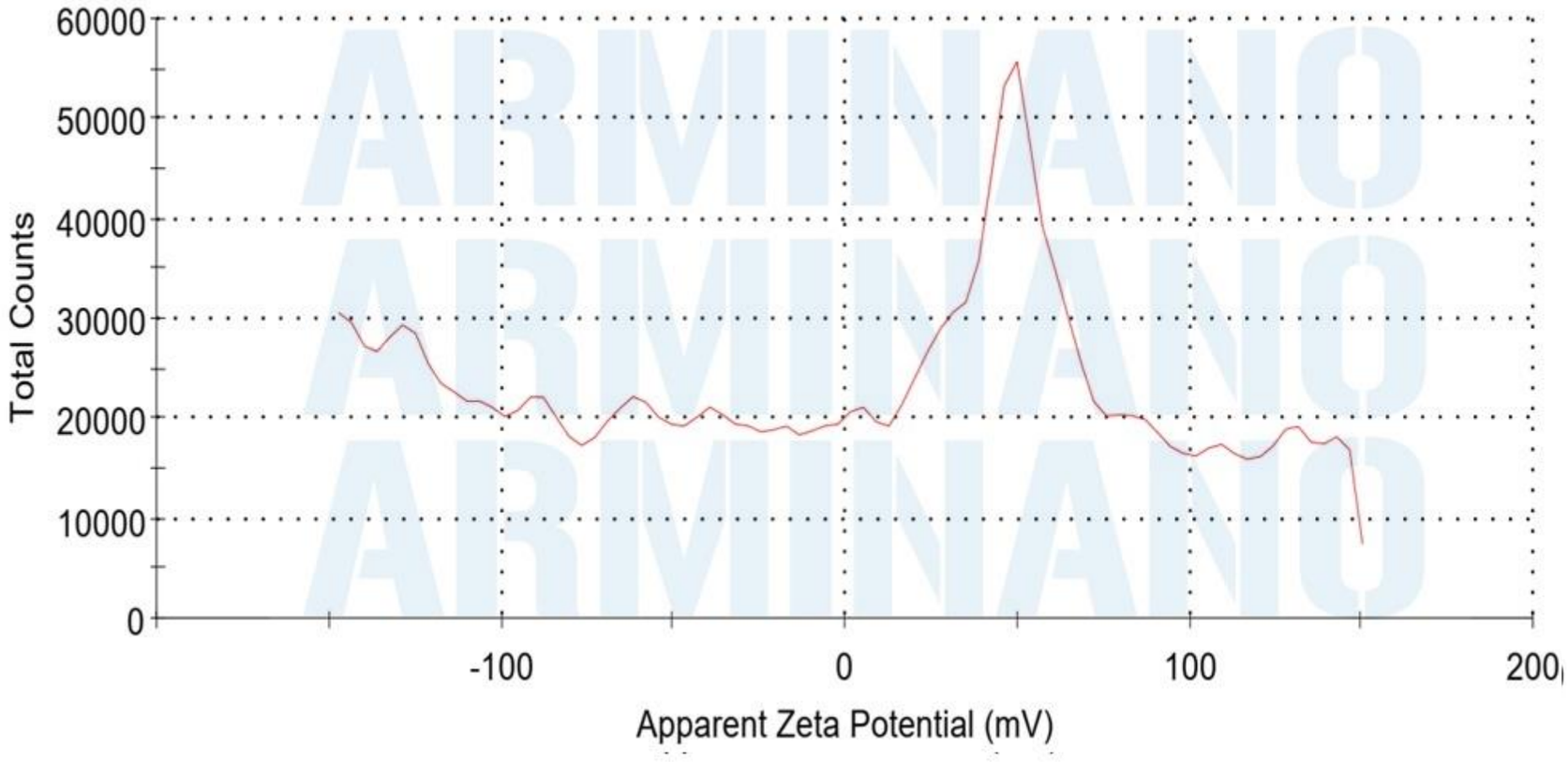
حرکت بسوی آینده پایدار
A mission for sustainable future

Address: Tehran-Damavand road, Pardis technology park, commercialization and techmart building, No. 1304
Postals Code: 16541 20708
Telefax: +98 21 7625 1689
(+98) 933 759 6565

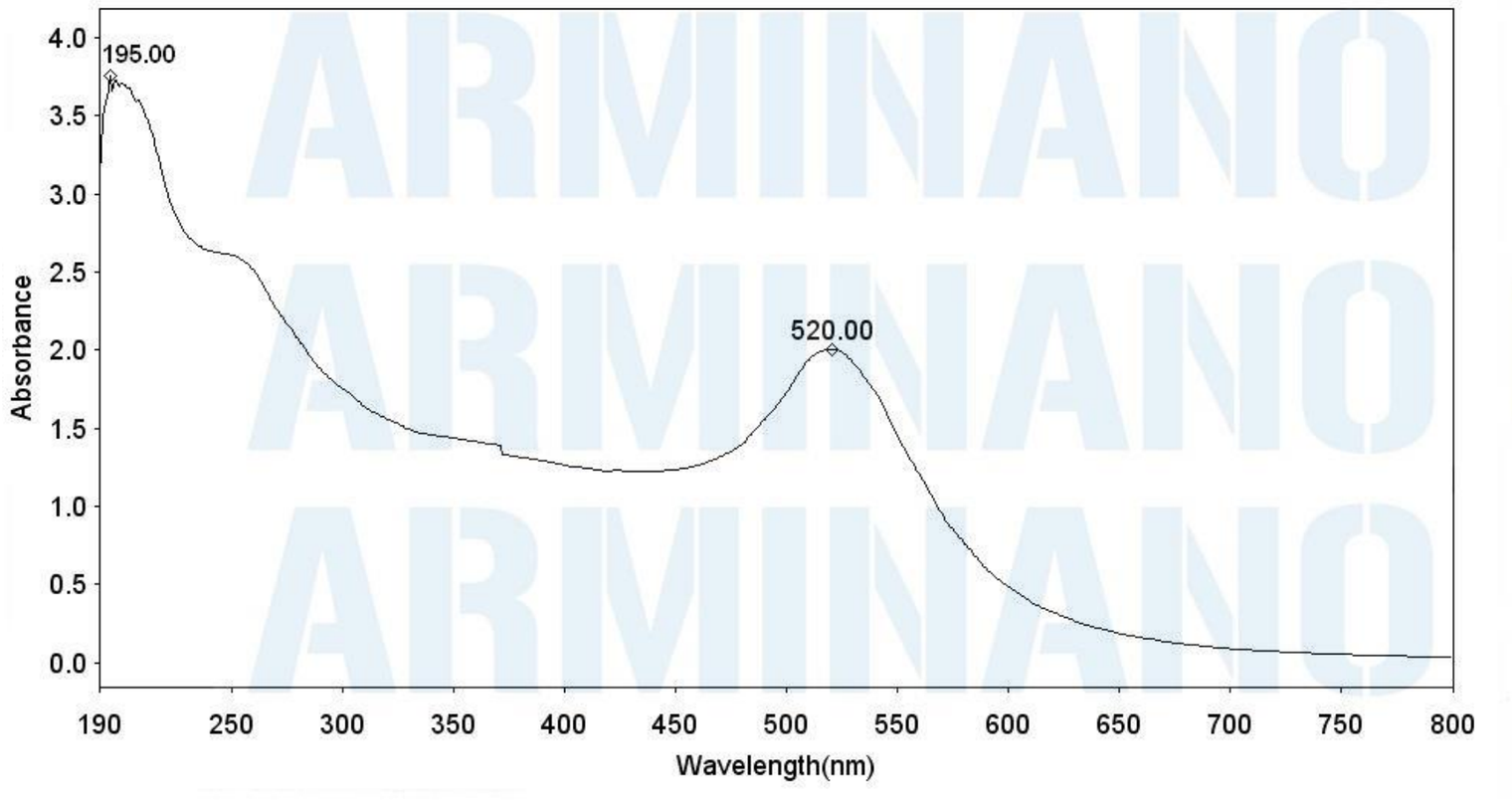
ARMINANO

Armina
Engineering Co.

Gold Nanoparticles
AUP311



Zeta potential distribution of AUP311 (DLS)



UV- Visible Absorption spectra of AUP311

Storage:

Store at 4-18˚C.
Do not freeze.
Avoid direct sunlight.
To disperse sedimented nanoparticles sonication could be used.

Shelf life:

When stored as specified the product is stable for at least 6 month.

www.armina-eng.com
Sales@armina-eng.com

حرکت بسوی آینده پایدار
A mission for sustainable future

Address: Tehran-Damavand road, Pardis technology park, commercialization and techmart building, No. 1304
Postals Code: 16541 20708
Telefax: +98 21 7625 1689

(+98) 933 759 6565