



IQ (19)

جمهورية العراق

وزارة التخطيط

الجهاز المركزي للتقييس والسيطرة النوعية

قسم الملكية الصناعية

براءة اختراع

(12)

(51) التصنيف الدولي

F16K21/00

(52) التصنيف العراقي

20

(11) رقم البراءة، 3457

(21) رقم الطلب، 2011/247

(22) تاريخ تقديم الطلب، 2011/7/12

(30) تاريخ طلب الاسبقية - بلد الاسبقية - رقم طلب الاسبقية،

(45) تاريخ منح البراءة، 2012/11/4

/ جامعة بابل كلية العلوم / قسم الكيمياء

(72) اسم المخترع وعنوانه، ا.د. داخل ناصر طه

/ السيد احمد عدنان عبد الامير

(73) اسم صاحب البراءة، الذوات اعلاه

(74) اسم الوكيل،

(54) تسمية الاختراع،

تصميم صمام حقن جرياتي جديد .

منحت هذه البراءة استنادا لاحكام المادة 21 من قانون

براءات الاختراع والنماذج الصناعية رقم 65 لسنة

1970 المعدل وعلى مسؤولية المخترع.

سعد عبد الوهاب عبد القادر

توقيع المسجل

رئيس الجهاز

## Summary

The idea is based on the design of a new flow injection valve, which is used in injection techniques. This valve contains 12 secondary valves for each valve with three controllable slots.

The purpose of this valve is to increase the possibility of dealing with reactions consisting of more than three chemicals, so that the estimation of any component within these reactions more easy and accurate and the system designed for this purpose less complex.

The new valve was manufactured from cheap and inexpensive materials available in the local market and in some cases, wastes of other materials were thrown. The efficiency of the valve was also tested by quadruple and matching studies by the reaction of tin dichloride with sodium periodate and potassium iodide in the acid medium( Sulfuric acid) where the iodine uptake is measured at the maximum length of 350 nm. Three materials were loaded into the new valve and the acid worked as a carrier current and gave a absorbance of 215 mV at concentration  $4.4 \times 10^{-5}M$  and SD equals 1.52 and the RDS value is 0.41 at (n = 14), respectively system that contains a valve has the ability to load two materials and other material as a current carrier The system of these injections with a dual-unit binary, which is loading two materials and two materials act as a carrier current, the system becomes more complex and increase the amount of dispersion. The researchers believe that the new valve is highly efficient than the modern valves because there is no flow injection valve works with the capacity of eight materials six loading materials and two substances are considered current carrier.