

# Legal Construction on The Abuse of New Synthetic Narcotics Based on The Early Warning System

Faisal Suparjo\*, Evita Isretno Israhadi

Borobudur University, Jakarta, Indonesia, Faisaldzaki8@gmail.com

Borobudur University, Jakarta, Indonesia, evita\_isretno@borobudur.ac.id

DOI:

<https://doi.org/10.47134/jcl.v3i3.1.5791>

\*Correspondence: Faisal Suparjo

Email: Faisaldzaki8@gmail.com

Received: 17/05/2026

Accepted: 05/06/2026

Published: 05/06/2026



**Copyright:** © 2026 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

**Abstract:** *The development of New Psychoactive Substances (NPS) demonstrates dynamics far faster than the ability of the narcotics criminal law to respond. The narcotics regulatory model in Indonesia, which still relies on a positive list system or list of prohibited substances, gives rise to various normative issues, ranging from delays in criminalization, legal uncertainty, and weak public health protection. This situation demonstrates a structural gap between scientific developments, particularly pharmacology and toxicology, and the static construction of criminal law norms. The study aims to analyze the weaknesses of narcotics criminal law regulations regarding NPS and to formulate an alternative, more adaptive criminal law construction through the Early Warning System (EWS) approach. The research method used is normative juridical with a legislative, conceptual, and comparative approach, including a study of the Psychoactive Substances Act 2016. The results show that the list-based criminalization approach is no longer adequate to address the ever-changing nature of NPS. The EWS has the normative potential to be repositioned as the foundation for the formation of criminal policies based on risk and psychoactive effects, without neglecting the principles of legality and human rights protection. A comparative study shows that the effects-based generic prohibition model provides regulatory flexibility, although it still presents challenges in terms of evidence and oversight. This study concludes that*

*integrating EWS into narcotics criminal law is a strategic step towards building a responsive, legitimate, and public safety-oriented NPS control system, while simultaneously encouraging the renewal of modern criminal law theory in Indonesia.*

**Keywords:** *New Psychoactive Substances; Early Warning System; narcotics criminal law; legality principle; adaptive criminalization*

## Introduction

The development of narcotics, psychotropic drugs, and new addictive substances, or New Psychoactive Substances (NPS), demonstrates a changing landscape of drug crime that is increasingly complex and unpredictable (Putra 2024). This phenomenon is no longer confined to a specific country but is moving across borders in line with advances in communication technology, global trade, and organized crime networks. NPS are rapidly produced and distributed through illegal and semi-legal channels, exploiting gaps in oversight (Christiana 2020). This global and transnational nature makes NPS a serious threat to national legal systems, which still rely on conventional mechanisms (Hasan 2023). This challenge demands legal thinking that is not merely reactive but also visionary and oriented towards early prevention. Moreover, delayed public dissemination of information

regarding newly identified NPS can weaken public trust in regulatory and law enforcement institutions, as communities may perceive the government as unable to respond effectively to emerging drug threats. Moreover, insufficient and untimely communication reduces public awareness of the legal and health risks associated with new substances, thereby undermining voluntary legal compliance and increasing the likelihood of NPS use and distribution before formal regulatory measures are enacted.

Modification of the chemical structure is a key characteristic of NPS, distinguishing them from classic narcotics. Small changes in the molecular chain are often sufficient to produce new substances with similar psychoactive effects, yet not listed on the applicable prohibition list (Harun 2025). This practice demonstrates a systematic strategy by perpetrators to evade criminal law. Narcotics laws, which rely on substance nomenclature, face significant difficulties in keeping pace with the pace of illegal innovation (Wahyudi 2025). This situation demonstrates an asymmetry between the speed of chemical development and the speed of regulatory response.

National criminal laws are generally formulated through formal procedures that require a lengthy time and multiple administrative stages. This mechanism has democratic legitimacy, but also limits responsiveness (Candra 2021). Delays in regulatory updates have resulted in the emergence of legal gray areas that criminals can exploit. Law enforcement officers find themselves in a dilemma, having to confront dangerous acts without an adequate normative basis. This situation reflects the structural lag of criminal law in responding to the realities of modern drug crime.

The conventional criminalization approach demonstrates significant limitations in responding to the dynamics of NPS. The regulatory focus on the list of prohibited substances causes criminal law to operate statically, while the objects it regulates are dynamic (Hasbi 2024). Consequently, public protection is suboptimal because the law only takes effect after social and health impacts have occurred. Repressive logic alone is insufficient to address these preventative and high-risk challenges. This situation has opened up space for a more adaptive paradigm shift in criminal law.

The Early Warning System (EWS) has emerged as a strategic instrument in addressing the circulation of NPS (Diah Pratiwi 2022). This system functions to detect the emergence of new substances at an early stage through the collection and analysis of scientific data (Dewi 2023). The information generated by the EWS includes chemical characteristics, pharmacological effects, and potential hazards to public health. The EWS's advantage lies in its ability to provide an objective basis for policy decision-making (Macintyre 2023). The presence of this system demonstrates a shift in approach from post-event enforcement to evidence-based prevention.

The need for proactive criminal law construction is becoming increasingly apparent as the threat of NPS increases (Hartono 2023). Criminal law is required to adapt without sacrificing the fundamental principles of the rule of law. An adaptive, risk-based approach offers a more responsive alternative to rapid change (Situmeang 2025). This legal framework prioritizes public protection as its primary objective. This reform also demands integration between law, science, and public policy.

The principle of legality occupies a central position in criminal law as a guarantee of certainty and protection of human rights (Fitri 2024). The classical concept of the principle

of legality emphasizes that criminal acts must be clearly defined through statutory regulations (Harahap 2024). This principle has evolved with the complexity of society and the emergence of new forms of crime. Modern criminal law has begun to adopt a more substantive approach without abandoning constitutional boundaries (Bahri 2024). This development opens up interpretive space for a more functional application of the principle of legality.

Formal legality faces sharp criticism in addressing technology- and science-based crimes. An overemphasis on textual certainty has the potential to hinder the protection of society from real dangers (Saraya 2025). Synthetic drug crimes demonstrate that legal certainty alone does not always align with substantive justice. Reliance on rigid normative formulations increases the risk of delayed state response (Hadianto 2025). This criticism has prompted the search for a more flexible yet accountable model of legality.

Material legality offers a more substantive approach to assessing criminal acts. The emphasis is no longer solely on the existence of written norms, but also on the desired objectives of legal protection. Normative flexibility is key to ensuring criminal law adapts to social and technological changes (Ismawati 2025). This approach still requires clear boundaries to prevent arbitrariness. The balance between certainty and expediency is crucial in the development of modern criminal law.

Criminal law policy theory views criminal law as a means to achieve specific social goals. Criminalization does not stand as an end in itself, but rather as an instrument for community protection. The relationship between criminal policy and scientific rationality becomes increasingly important in addressing modern risks. A risk-based approach places potential harm as a primary consideration in policy formulation (Situmeang 2022). A preventive perspective is an integral part of drug crime prevention strategies.

The concept of non-prescription drugs (NPS) exhibits characteristics that distinguish it from conventional narcotics. These substances often lack a long history of use, making their impacts difficult to predict. The classification of NPS continues to evolve in line with emerging illegal innovations. The challenges of identification and legal evidence are becoming increasingly complex due to limited testing tools and technical expertise. This situation demands interdisciplinary collaboration between law enforcement and scientists (Santos 2024).

From a legal perspective, the Early Warning System is no longer understood as a purely technical instrument. It serves as a strategic source of information for the development of criminal law policies. Cross-sector collaboration enables more accurate and rapid data exchange. The transformation of the Early Warning System (EWS) into a basis for policymaking reflects an evidence-based legal approach. This role positions the EWS as a crucial element in reforming narcotics criminal law.

## Methodology

The research method employs a normative juridical approach emphasizing conceptual and prescriptive analysis of narcotics criminal law reform oriented towards the Early Warning System. This research examines law as a living norm within the legal system, court decisions, as well as criminal law and health law doctrines relevant to the control of New Psychoactive Substances. A legislative approach is used to examine the structure, principles,

and weaknesses of narcotics regulation, which still relies on the substance scheduling system, while a conceptual approach is utilized to build theoretical constructs regarding adaptive legality and risk-based criminalization. Primary, secondary, and tertiary legal materials are analyzed qualitatively through systematic, teleological, and comparative interpretations to find coherence between the objectives of community protection, legal certainty, and respect for human rights. The results of the analysis are then formulated argumentatively to produce normative recommendations that are applicable to policymakers and relevant to the development of contemporary criminal law science.

## **Result and Discussion**

### **Weaknesses of Criminal Law Regulations Regarding New Psychoactive Substances (NPS)**

The positive list-based narcotics regulation model is the dominant model adopted in national narcotics law. This system operates by limiting the types of substances that qualify as narcotics or prohibited psychotropic substances. Legal certainty is achieved because the objects of criminal offenses are clearly and explicitly defined. However, this approach assumes that the types of dangerous substances are static and predictable from the outset. This assumption is difficult to maintain in the face of the ever-changing development of NPS.

The regulation of narcotics in Law Number 35 of 2009 strictly adheres to the positive list model, as reflected in Article 6 paragraph (1), which classifies narcotics into Schedules I, II, and III. This classification is accompanied by an appendix containing the types and names of substances in a limited manner. This formulation provides legal certainty regarding the objects of narcotics crimes. However, this system assumes that all dangerous substances can be anticipated from the outset by lawmakers. This assumption is difficult to maintain as the development of chemically modified NPS continues.

The reliance on the substance list is also evident in Article 127 paragraph (1) of the Narcotics Law, which requires the status of a particular narcotic class as the basis for criminalizing abusers. The element "narcotics class I, II, or III" is a central element in proving a crime. NPS substances not listed in the appendix to the law fall outside the scope of this article. This situation creates a legal loophole, even though the act committed has addictive and health-damaging effects. Criminal norms lose their enforceability because they are tied to the formality of classification.

A key characteristic of the positive list system lies in its reliance on the chemical nomenclature of substances. Any small change in molecular structure can produce a new substance that falls outside the scope of criminal norms. NPS producers and distributors systematically exploit this loophole. Criminal law oriented toward the substance list loses its reach because it only regulates what is already known. As a result, regulation always lags behind criminal practice.

The procedure for adding a new substance to the prohibited list generally requires lengthy administrative and legislative steps. This process involves scientific studies, recommendations from technical institutions, and enactment through legislation. The time

required is often disproportionate to the speed of NPS circulation in society. During this transition period, factually dangerous substances do not yet have a clear illegal status. This situation creates a gray area that weakens the effectiveness of criminal law.

Normative barriers also arise from concerns about violating the principle of legality. Lawmakers tend to be cautious, avoiding formulating norms that are deemed too open-ended. This cautious attitude actually lengthens the time lag between scientific findings and legal regulations. This lack of synchronization increases the risk of NPS misuse without adequate criminal consequences. Criminal law ultimately fails to optimally fulfill its protective function.

The legal implications of this situation are acutely felt by law enforcement officials. Investigators and prosecutors are often faced with clearly dangerous acts, but lack a strong legal basis for prosecution. Legal uncertainty arises because these acts fall within an area untouched by criminal norms. Officials are forced to choose between the risk of violating the principle of legality and allowing real dangers to occur. This dilemma exposes the structural weaknesses of existing narcotics regulations.

The potential for selective criminalization also increases in conditions of regulatory ambiguity. Law enforcement can differ from one region to another depending on the interpretation of authorities and internal institutional policies. These differences result in unequal legal treatment for perpetrators who commit similar acts. Consistency in court decisions becomes difficult to achieve because the normative basis is not uniform. This situation contradicts the principles of certainty and equality before the law.

Obstacles to scientific evidence in court are another equally serious problem. Proving narcotics crimes requires clarity about the status of the seized substances. NPS substances often lack standardized testing or are not yet listed in official regulations. Experts presented in court also face limited normative references. These evidentiary difficulties open opportunities for defendants to escape criminal liability.

The gap between scientific development and criminal law is increasingly evident in the phenomenon of NPS. Chemistry and pharmacology can identify new substances quickly. Data on psychoactive effects and health risks can be obtained more quickly through laboratory research. Criminal law moves much more slowly, tied to formal procedures and political legitimacy. It disconnects the law in a position unresponsive to actual threats.

The law's reliance on substance naming demonstrates the limitations of the adopted regulatory paradigm. The danger of a substance is not always determined by its chemical name, but rather by its pharmacological effects and addictive potential. An effects- and risk-based approach has yet to become mainstream in national narcotics regulation. The overly narrow focus on nomenclature neglects the primary objective of criminal law, which is public protection. This lag can be understood as a form of systemic regulatory lag.

The social impact of the circulation of NPS cannot be underestimated. These substances are often consumed without adequate understanding of dosage and side effects. The risk of overdose, mental disorders, and death increases significantly. The public is the most vulnerable group to bear the consequences of the weak legal response. The social protection promised by criminal law has not been realized in practice. Public health is also

under serious pressure due to regulatory delays. Health services are facing a surge in cases related to the use of unknown substances. Medical personnel struggle to provide optimal treatment due to limited information. The state is failing to carry out its preventive function effectively. This situation demonstrates the close relationship between the effectiveness of criminal law and public health policy.

A public safety-oriented approach to criminal law is urgently needed in addressing NPS. The law cannot simply wait for formal confirmation before acting. Protection of victims and the wider community must be a top priority. More adaptive regulatory reforms open up opportunities for the integration of scientific data into criminal policy. This orientation emphasizes that criminal law functions as an instrument of protection, not merely a means of punishment.

### **Early Warning System-Based Criminal Law Construction**

Repositioning the Early Warning System (EWS) within criminal law requires a shift in perspective on the sources of norm formation. EWS has often been understood as a technical tool for collecting and presenting data. This perspective limits the strategic role of EWS to the pre-policy stage. However, the information generated by EWS has normative value because it reflects the level of actual danger to society. This type of scientific data deserves to be used as a basis for criminal law considerations.

EWS generates information on the emergence of new substances, patterns of abuse, and their resulting health impacts. This information is not speculative but based on laboratory findings and epidemiological monitoring. The objective and verified nature of EWS data provides scientific legitimacy for state action. Criminal law that ignores this type of information risks losing its social relevance. Repositioning EWS means recognizing science as an integral part of legal rationality.

Integrating EWS into the criminal policy-making cycle requires changes in institutional design. The legislative and regulatory process can no longer rely solely on post-incident responses. EWS information needs to be systematically accessed by legislators and policymakers. This model allows the state to respond to NPS threats earlier. The relationship between scientific data and legal norms becomes more direct and functional.

The legitimacy of using scientific data in the formation of criminal norms is often questioned because it is considered to have the potential to reduce legal certainty. This concern stems from the assumption that criminal norms must always be formulated in a closed and rigid manner. This view is not entirely in line with the development of modern criminal law. Science helps criminal law establish more rational boundaries. Legal certainty is not lost if the normative framework is formulated clearly and accountably.

The adaptive criminalization model for NPS demands a paradigm shift from a substance-based approach to an effects- and risk-based approach. The primary focus is no longer on the chemical name of a substance, but rather on its psychoactive effects and potential harm. This approach is more in line with the goal of public protection. Criminalization becomes a means of prevention, not simply a reaction after harm has occurred. This model allows criminal law to be more responsive to new threats.

The use of scientific parameters as the basis for establishing temporary prohibitions is a key instrument in adaptive criminalization. These parameters can include levels of addiction, acute health risks, and the potential for mass abuse. The establishment of parameter-based prohibitions provides the state with the ability to act quickly without having to wait for changes in the law. This mechanism still requires strict oversight to prevent abuse. The balance between speed of response and legal accountability is a primary concern.

Flexible legal mechanisms are not synonymous with ignoring constitutional principles. Flexibility is designed to ensure that criminal law can carry out its functions effectively. Limits of authority, transparent procedures, and regular evaluation mechanisms must still be maintained. The adaptive model positions the law as a living and responsive system. The principle of the rule of law remains a foundation that is not abandoned. Reconstructing the principle of legality is a central issue in the development of EWS-based criminal law. The classical principle of legality was designed to protect citizens from arbitrary power. This protection remains relevant and cannot be eliminated. The challenge lies in how the principle of legality is interpreted so as not to hinder public protection. Reconstruction is carried out at the level of application, not by eliminating the principle.

Contextual and functional legality offer a more balanced approach. The emphasis is not only on the existence of written norms, but also on the intended goals of protection. Criminal norms are understood as instruments for controlling social risks. This approach still requires clear formulations and testable procedures. Citizens' rights are protected through judicial oversight mechanisms.

Legal certainty in the adaptive regulatory model is achieved through the formulation of clear and measurable parameters. Legal subjects can understand the reasons why an act is prohibited based on the risks it poses. Transparency in the prohibition-determining process is a crucial element. Legal certainty is understood not only as certainty of text, but also as certainty of purpose. This model provides clarity and broader protection.

Human rights protection remains a primary consideration in EWS-based criminal policy. A risk-based approach must be balanced with the principle of proportionality. States must not use scientific data to justify excessive restrictions on rights. Challenge mechanisms and legal review mechanisms must be established. Human rights protection and public safety are positioned in a complementary relationship.

The UK's experience with the Psychoactive Substances Act 2016 provides an important perspective for reforming drug criminal law. The law was enacted in response to the proliferation of NPS that were not covered by previous regulations. UK legislators chose a general prohibition approach for substances with psychoactive effects. This approach marked a shift from a list system to an effects-based system. The 2016 PSA serves as a concrete example of adaptive criminalization in practice.

The generic ban approach in the 2016 PSA does not rely on specific substance designations. The prohibition is based on a substance's ability to affect human mental and emotional functioning. The evidentiary mechanism focuses on psychoactive effects, not chemical structure. The 2016 PSA also recognizes certain exceptions for substances used

lawfully. This design demonstrates an effort to maintain a balance between public protection and legal certainty.

The 2016 PSA has not been without criticism, particularly regarding the evidence and the limits of prohibition. Challenges arise in determining accountable standards for psychoactive effects. Human rights issues are also a concern in the implementation. Nevertheless, the UK experience provides valuable normative lessons. The effects-based approach has proven effective in closing legal loopholes left by the substance listing system.

Normative lessons from the 2016 PSA are relevant for reforming Indonesia's narcotics criminal law. An adaptive approach can be tailored to the national constitutional framework. The integration of the EWS allows for a more controlled implementation of the risk-based model. Such reforms do not require a slavish imitation but rather should be adapted to the national legal system. This comparison enriches available policy options.

The design of progressive criminal law regulations based on the EWS demands cross-sector collaboration. Scientific institutions provide data and risk analysis. The executive is responsible for a swift and measured policy response. Legislators ensure democratic legitimacy and normative oversight. A continuous evaluation scheme is necessary to ensure regulations remain relevant and proportional.

This type of criminal law construction prioritizes public protection. The law no longer merely responds to violations but also prevents broader harm. The integration of scientific knowledge strengthens the rationality of criminal policy. This model demonstrates that criminal law can evolve without losing its identity. EWS-based reforms pave the way for a more responsive and equitable drug legal system.

## Conclusion

This research confirms that the main findings center on the inability of conventional criminal law to respond to the rapidly evolving and fluid dynamics of New Psychoactive Substances (NPS) synthetic narcotics crime. The substance-list-based approach has proven inconsistent with scientific realities and the constantly evolving patterns of NPS production and distribution, creating normative gaps and the risk of delays in legal protection. The analysis shows that a rigid criminal law framework has the potential to undermine the goals of community protection and public health because it fails to anticipate scientifically identified dangers. The Early Warning System (EWS) holds a strategic position as the foundation for constructing a new criminal law because it can provide information based on risks, impacts, and distribution patterns relevant to norm formulation. The validity of the EWS as a basis for criminal policy is confirmed by its ability to bridge scientific knowledge and regulatory needs, while simultaneously broadening the perspective of criminal law so that it relies not solely on formal certainty but also on substantive protection of threatened legal interests.

The role of communication systems is crucial in addressing the rapid emergence and dissemination of New Psychoactive Substances (NPS), particularly because the development of NPS often outpaces conventional legislative and regulatory responses. Effective communication serves as an early preventive mechanism by increasing public

awareness of the health, social, and legal risks associated with NPS before these substances become widely accepted within society. Transparent and evidence-based communication from government agencies, law enforcement institutions, public health authorities, educational institutions, and the media can help correct misinformation and reduce the perception that NPS are safer alternatives to conventional narcotics merely because they have not yet been specifically regulated by law.

Furthermore, communication systems play an important role in risk governance by facilitating the rapid dissemination of information regarding newly identified substances, emerging consumption trends, and potential health consequences. Given that NPS are frequently promoted through digital platforms and social media networks, preventive communication strategies must also utilize these channels to provide timely warnings and counter misleading narratives. Public education campaigns, community outreach programs, and digital literacy initiatives can strengthen public resilience against online marketing and normalization efforts undertaken by illicit drug networks.

The theoretical implications of this research contribute to the development of a modern criminal law that is more adaptive, responsive, and open to the integration of science without compromising the fundamental principles of the rule of law. In practical terms, the idea of strengthening the Early Warning System (EWS) provides direction for updating national narcotics regulations, enabling them to adapt to changing threat characteristics, while simultaneously enhancing the role of policymakers and law enforcement in assessing risks from an early stage. Normative recommendations are directed at lawmakers to design regulatory frameworks that allow for the use of scientific parameters as a basis for establishing measurable and monitorable temporary bans. Institutional strengthening of the Early Warning System is also necessary through inter-agency coordination, clarity of authority, and transparent accountability mechanisms to maintain the legitimacy of its policies. Further research is crucial to deepen the study of the relationship between law, science, and synthetic narcotics, including their impact on human rights, so that future criminal law reforms have a more robust theoretical and empirical foundation.

## References

- Bahri, R. A. 2024. "Penafsiran Asas Judicial Pardon Dalam Kitab Undang-Undang Hukum Pidana Baru. *Journal Of Interdisciplinary Legal Perspectives*, 1(1), 16-32."
- Candra, S. 2021. "Perumusan Ketentuan Pidana Dalam Hukum Pidana Administratif. Jakarta: PT Republik Media Kreatif."
- Christiana, C. M. 2020. "Terobosan Penegakan Hukum Dalam Menangani Ancaman New Psychoactive Substance (NPS): Adopsi Ketentuan Hukum Internasional. *Jurnal Kajian Strategik Ketahanan Nasional*, 3(1), 7."
- Dewi, N. H. 2023. "Pengembangan Dokumentasi Penskoran Early Warning System Sebagai Deteksi Dini Penurunan Kondisi Pasien. *Faletahan Health Journal*, 10(01), 54-62."
- Diah Pratiwi, A. M. 2022. "Revisi Undang-Undang Nomor 35 Tahun 2009 Tentang Narkotika: Pengaturan Zat Psikoaktif Baru. *Jurnal Kajian Strategik Ketahanan Nasional*, 5(1), 5."

- Fitri, F. A. 2024. "Tinjauan Teoritis Tentang Asas Legalitas Dalam Hukum Pidana Indonesia. Jimmi: Jurnal Ilmiah Mahasiswa Multidisiplin, 1(2), 202-209."
- Hadianto, A. 2025. "Urgensi Pembaharuan Kitab Hukum Acara Pidana Dalam Menjawab Tantangan Penegakan Hukum Modern Di Indonesia. Jurnal USM Law Review, 8(3), 2842-2860."
- Harahap, D. F. 2024. "Perluasan Asas Legalitas Dalam Pembaharuan Hukum Pidana. Meukuta Alam: Jurnal Ilmiah Mahasiswa, 6(1), 116-133."
- Hartono, M. S. 2023. "Konstruksi Hukum Pidana Yang Berkemanfaatan Dalam Penanganan Tindak Pidana Penyalahgunaan Narkotika. Jurnal Komunikasi Hukum (JKH), 9(1), 552-563."
- Harun, N. &. 2025. "Dealing With The Threat Of New Drugs (Psychotropic Substances) In Malaysia: A Pre-Analysis From A Islamic Law Perspective: Menangani Ancaman Dadah Baharu (Bahan Psikotropik) Di Malaysia: Satu Analisis Awal Menurut Perspektif Hukum Syarak. Al-Qanatir: Inte."
- Hasan, M. &. 2023. "New Psychoactive Substances: A Potential Threat to Developing Countries. Addiction & Health, 15(2), 136."
- Hasbi, Y. 2024. "Tindak Pidana Narkotika Dalam Perspektif Hukum Islam Dan Filsafat. Equality: Journal of Law and Justice, 1(2), 115-136."
- Ismawati, S. &. 2025. "Transformasi Kebijakan Pidanaan Dalam Kuhp Nasional: Menuju Sistem Pidanaan Yang Berkeadilan Dan Humanis. Simbur Cahaya, 283-306."
- Macintyre, C. R. 2023. "Artificial Intelligence in Public Health: The Potential Of Epidemic Early Warning Systems. Journal Of International Medical Research, 51(3)."
- Putra, G. S. 2024. "Qualitative Analysis For Illicit Drugs And NPS (New Psychoactive Substances) Using GC-MS. Bulletin Of Pharmaceutical Sciences Assiut University, 47(1), 249-259."
- Santos, I. C.-O. 2024. "New Psychoactive Substances: Health And Legal Challenges. Psychoactives, 3(2), 285-302."
- Saraya, S. L. 2025. "Dinamika Hukum Di Indonesia: Perkembangan & Tantangan. Yogyakarta: PT. Star Digital Publishing."
- Situmeang, S. M. 2022. "Politik Hukum Pidana Terhadap Kebijakan Kriminalisasi Dan Dekriminalisasi Dalam Sistem Hukum Indonesia (Politics of Criminal Law Against Criminalization And Decriminalization Policies in the Legal System in Indonesia). Res Nullius Law Journal, 4(2), 201-2."
- Situmeang, S. L. 2025. "Evolusi Kejahatan Dan Pidanaan: Tantangan Dalam Penegakan Hukum Dan Penologi Modern (The Evolution of Crime and Punishment: Challenges In Law Enforcement And Modern Penology). Res Nullius Law Journal, 7(2), 87-97."
- Wahyudi, R. T. 2025. "Regulasi Narkotika Golongan Baru (New Psychoactive Substances) Dalam Sistem Hukum Indonesia: Tantangan Dan Reformasi. Jurnal De Victim, 1(1), 1-13."